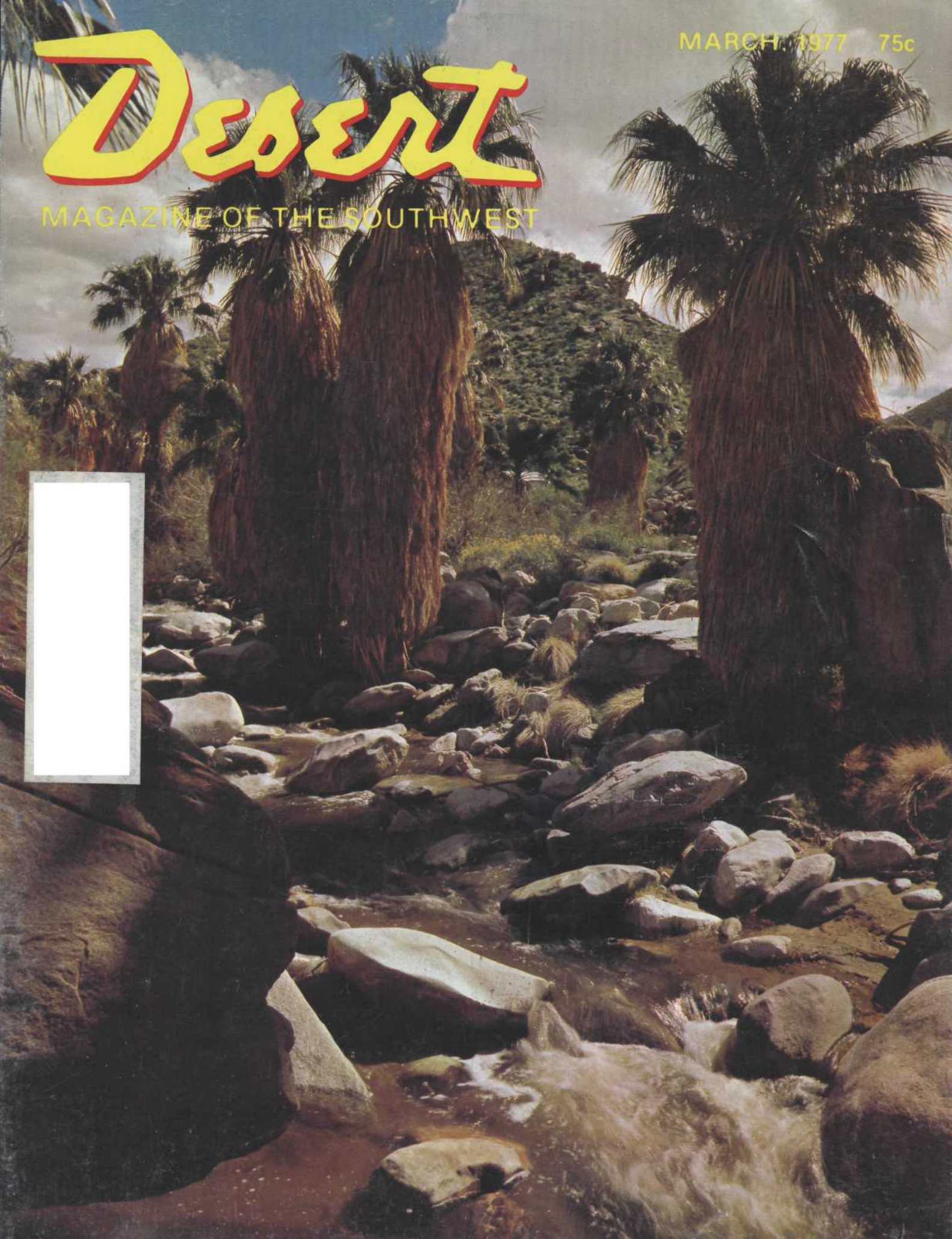


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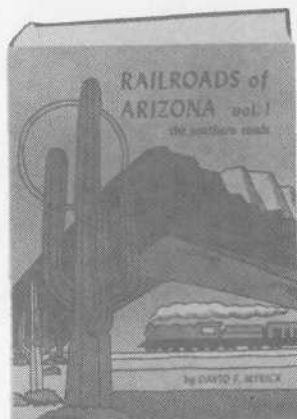


THE COVER:
Washingtonia palms in
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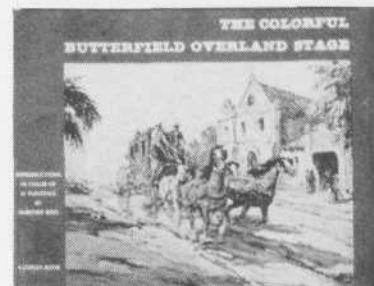
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Text by Richard F. Pourade
Paintings by Marjorie Reed

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A Peek in the Publisher's Poke

SOUTHERN CALIFORNIA'S Coachella Valley is probably best known for playing host to presidents, dignitaries and celebrities—and for the numerous sports events held because of our fabulous winter climate.

But, although the resort cities offer the ultimate in winter relaxation, the outdoors enthusiast also knows that in the valley's immediate vicinity are a vast variety of recreational offerings.

Cool, palm-lined canyons beckon the hiker, as do old Indian trails that lead back into rugged mountain background. The Salton Sea and Lake Cahuilla vie for the fishermen, and for the artist, capturing the elusive smoke tree on canvas is always a challenge.

Campsites abound, and to bring you up-to-date on their present status, be sure to read Bill Jennings' in-depth article on the subject in this issue.

Dick Bloomquist takes us to two Coachella Valley palm oases this month, Andreas and Murray Canyon. However, in checking with the Indian Tribal Council in Palm Springs prior to press time, I found that Murray Canyon is closed temporarily due to a fire. Be sure to check with the Council before planning an outing.

Yes, there's fun for everyone in the Coachella Valley—and when you plan your visit, don't forget to stop by a date grove and sample one of Nature's sweetest fruits—or take an aerial tram ride from the desert floor to 8500 feet in just minutes.

And—don't forget—the *Desert Magazine's* offices and Book Shop are also in the Valley, in Palm Desert. So please drop by and say hello when you're passing through.

William Knight

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Palm Springs Aerial Tramway

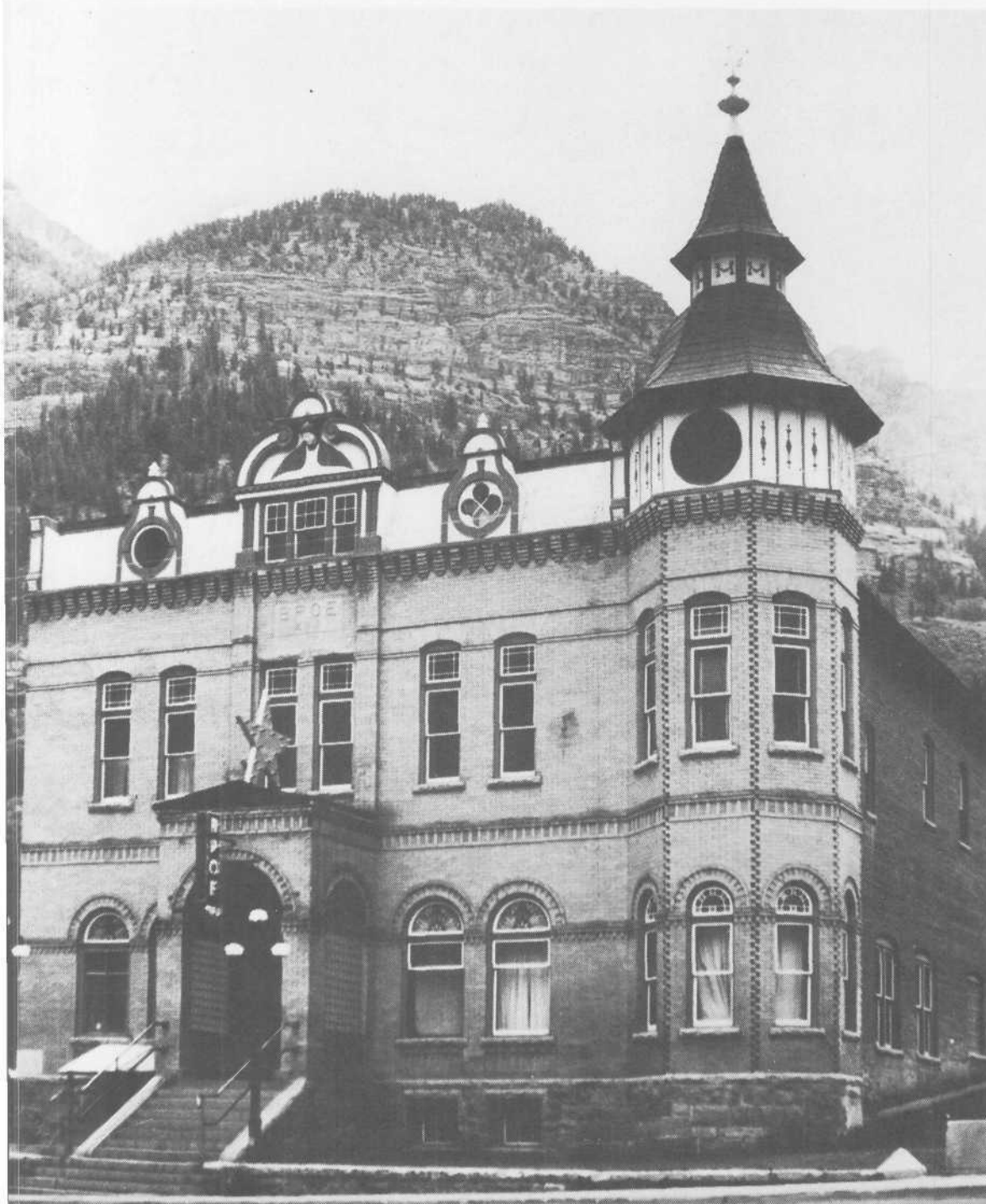
Desert GHOSTS

by HOWARD NEAL

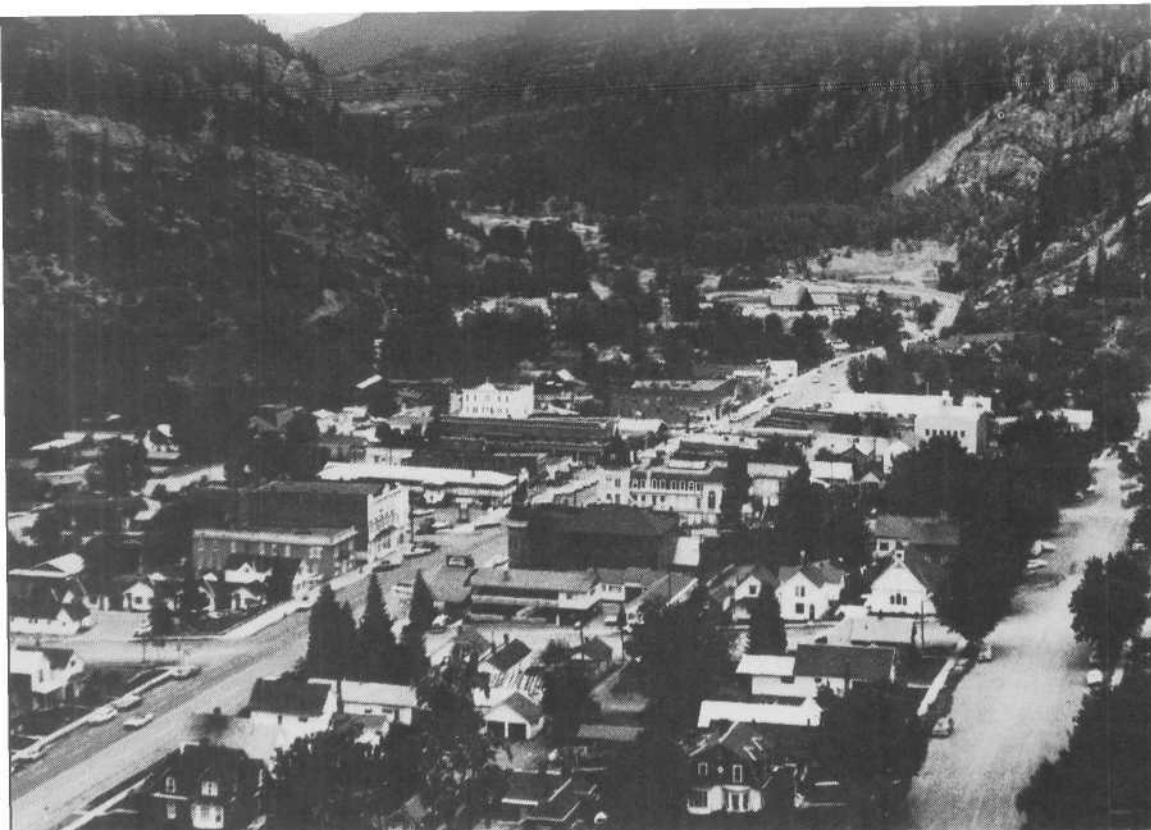
Ourray, Colorado

The Indians called the place "Uncapahgre." In the Ute language the word meant "hot water spring." Long before any white man set his eyes upon the beautiful valley, the Indians had camped there, in the shadow of the lofty peaks, and enjoyed the hot springs.

White men first came into the high mountain valley in the summer of 1875. Within months, four silver lodes were discovered. More white men followed, and soon there was a settlement. The Indian word was accepted, with slight change, and the new town was named Uncompahgre City. Soon,



The Elk's Lodge is one of Ourray's most imposing structures. The building was completed in 1904. Ourray, founded in 1876, boomed following the discovery of gold at Camp Bird in 1895. That boom continued well into this century. Ourray's population is now 800. Photographs by Edward Neal.



Ouray's setting is one of the most spectacular in Colorado. The community is situated in a small river valley surrounded by high mountain peaks. Ouray's elevation is 7800 feet. Nearby mountains rise to nearly 14,000 feet.

though, in honor of a Ute chief who openly welcomed the white settlers, the name of the community was changed to Ouray (pronounced "you-ray").

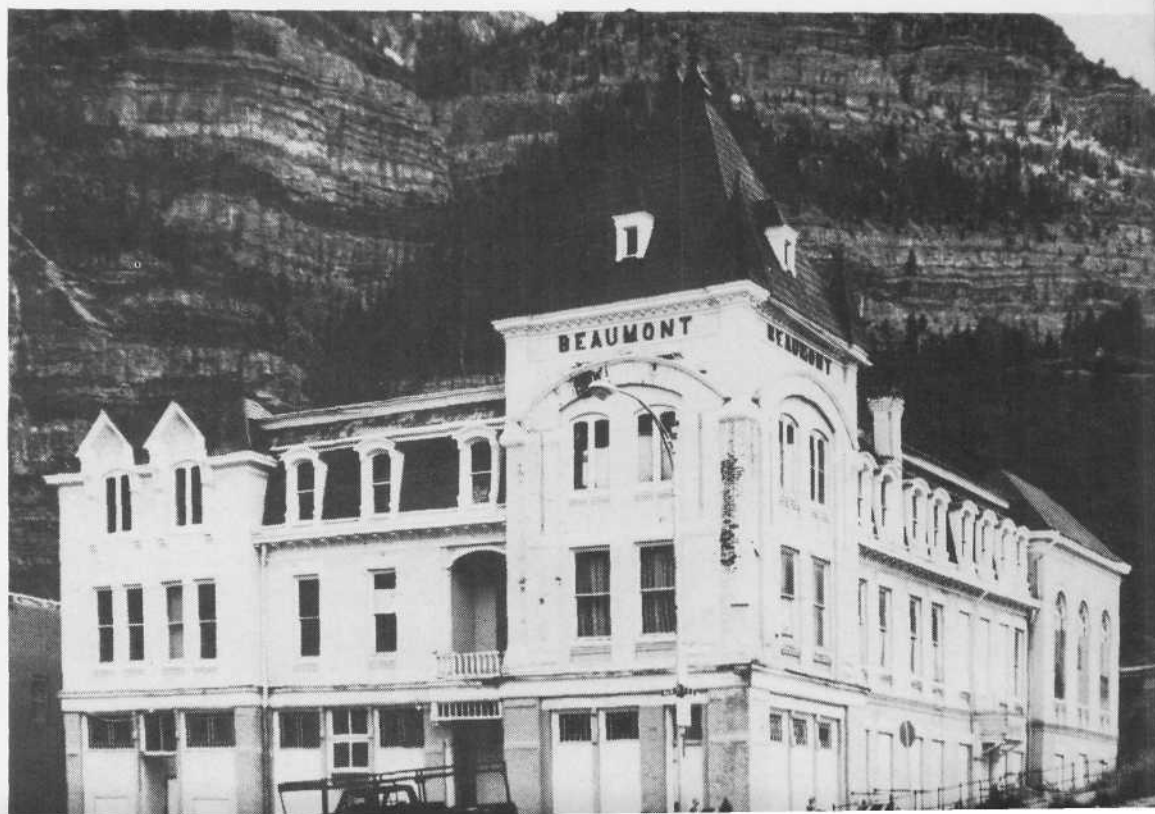
New sources of mining riches were discovered regularly. Ouray, which was the supply town to the mines, grew at a steady pace. The railroad conquered the rugged mountain passes and arrived in Ouray in 1888. The big mining discovery was made in 1895. In that year an immensely rich gold vein was found high in the nearby mountains at Camp Bird. The Camp Bird discovery made its owner, Tom

Walsh, a millionaire, and financed the purchase of the famous "Hope Diamond" for his daughter, Evelyn Walsh McLean.

Today, Ouray is called "The Switzerland of America." It is still a mining town with an ore production of millions of dollars annually, but it is fast becoming known as the center of one of America's most spectacular mountain resort areas.

Ouray is located 24 miles north of Silverton, Colorado, on U.S. Highway 550. □

The Beaumont Hotel is one of Ouray's famous landmarks which date from the days of peak mining activity. Although mining still continues in the area, Ouray is quickly becoming known as the center of one of America's most beautiful resort areas.



Goodies at Goodsprings

by MARY FRANCES STRONG

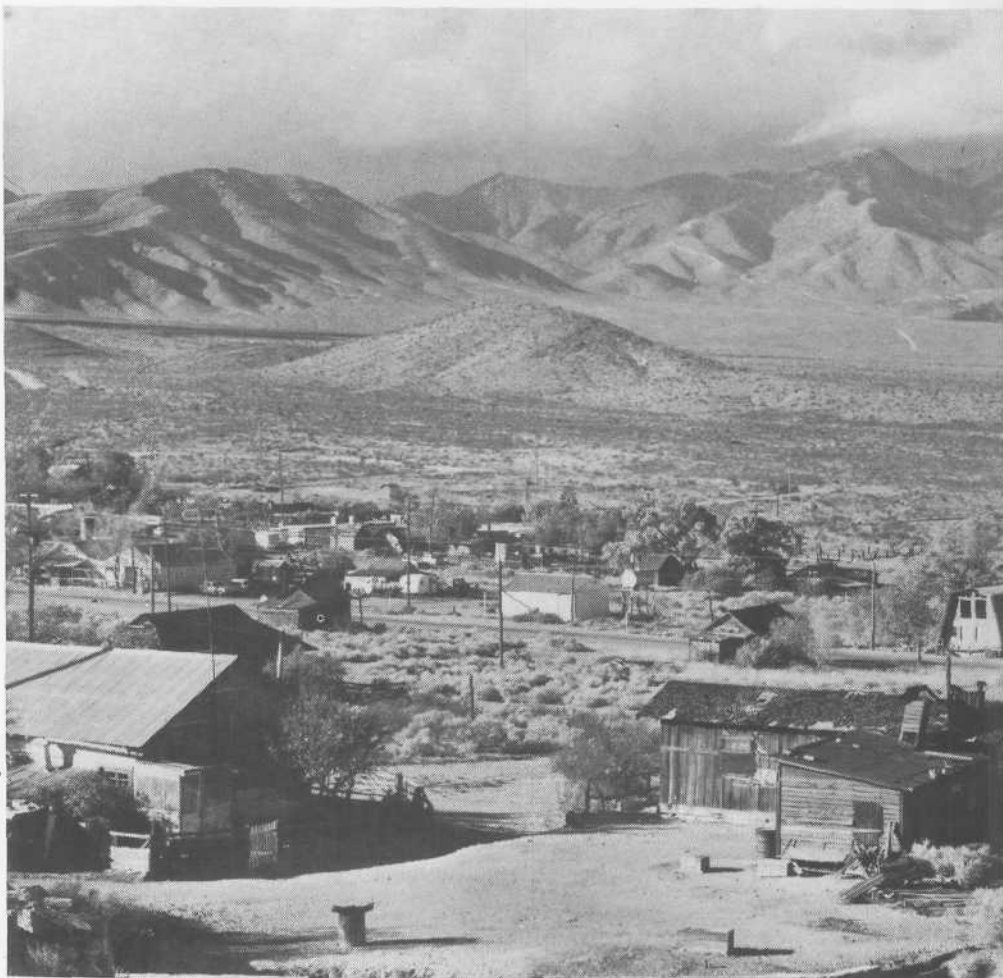
photos by Jerry Strong

NEVADA is justly famous for her many great mines and well-deserves the nickname "Silver State." To the delight of mineral collectors, rich ores are not the only values produced. From a number of Nevada mines have come some exceptionally fine mineral specimens. The latter includes outstanding stibnite crystals from Manhattan; showy wolframite from Comet; colorful fluorite from Broken Hills; gem turquoise from numerous locals and fire opal from Virgin Valley. Lesser known are the "goodies" to be found at Goodsprings.

The Goodsprings Mining District (Potosi and Yellow Pine) in southwestern Clark County has proven to be a veritable treasure chest of both common and rare mineral specimens. Its mines have produced the largest variety of minerals in Nevada and accounted for a production total of 24 million dollars primarily in lead and zinc. Lesser amounts of gold, silver, copper, molybdenum, vanadium, nickel, cobalt, platinum, mercury, palladium, antimony, manganese, iridium and uranium have also been recovered.

If minerals are your bag, the occurrence of the following specimens should be tempting — malachite in fine groups pseudomorphous after azurite crystals; superb vanadinite, hydrozincite, cuprodescloizite, azurite and linarite. Over 100 mines and scores of prospects lie within a 12-mile radius of the little settlement of Goodsprings. From their dumps, a serious mineral collector may glean some fine specimens.

In case I may have given the wrong impression, let me clarify here. Excellent specimens are not covering the dumps just waiting to be picked up. Through the years, a fair number of collectors have tried their luck in this re-



gion. All the easy-to-reach locales have seen many visitors but those requiring hard, steep climbs discouraged the majority of collectors.

Success will depend on the effort put forth. Allowing a few hours or even a day, for collecting, will probably bring only disappointment.

Please bear in mind that most mines are not abandoned, but merely idle. Check at the Pioneer Saloon for status of mines you may wish to visit. We found the owner most helpful.

To successfully collect in this region,

you will need copies of the Goodsprings, Shenandoah Peak and Roach U.S. Geological Survey topographical maps. The map accompanying this article does not attempt to show all the mines. It merely introduces you to a region that is certain to interest mineral collectors. Providing the long and impressive list of minerals in this region would serve little purpose. Instead, let us discuss the region's history and few of the more important mineral locations.

The Goodsprings District is one of the oldest in Nevada. There is a slight dis-

Right: Feldspar crystals have weathered from the host rock by the thousands and may be easily collected. Selectivity is the byword here, as an occasional twin can be gleaned from the myriad choices within the talus.

Below: Goodsprings has celebrated her 91st birthday; and, though the boom is over—the mines idle and mills gone—she still houses a permanent population. A small store and saloon comprise the business district today.



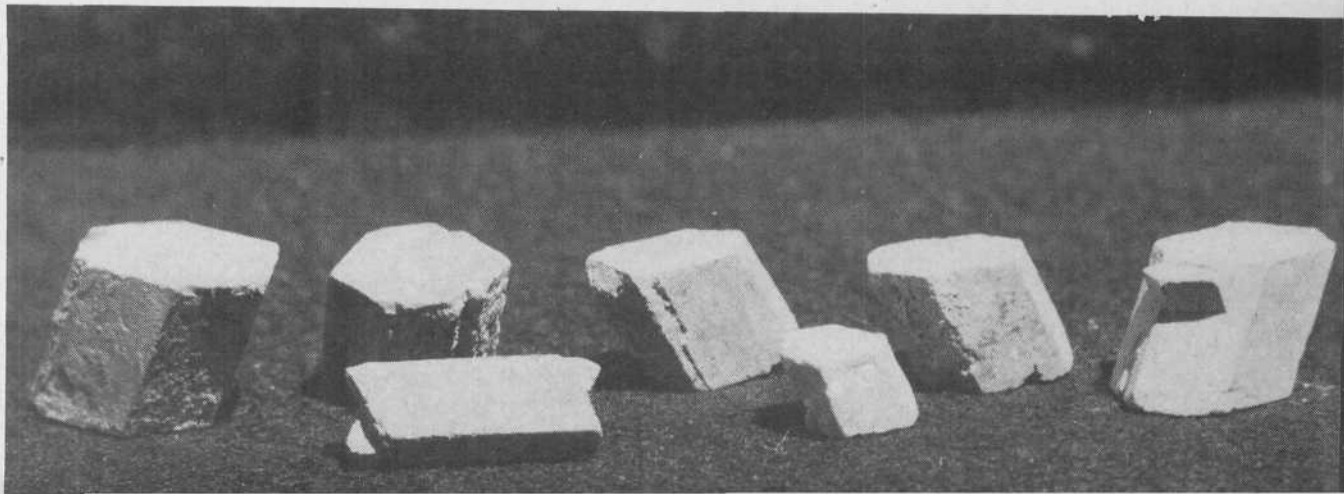
parity in the historical reports concerning the region's birth. In view of this, I have elected to repeat the more romantic account. In 1856, a party of Mormons was returning to Utah from California over the Spanish Trail. While resting at Mountain Springs Pass, they learned from local Indians about a rich lead deposit in the Spring Mountains. This information was passed on to Nathaniel V. Jones, a Mormon settler at the Las Vegas Way Station.

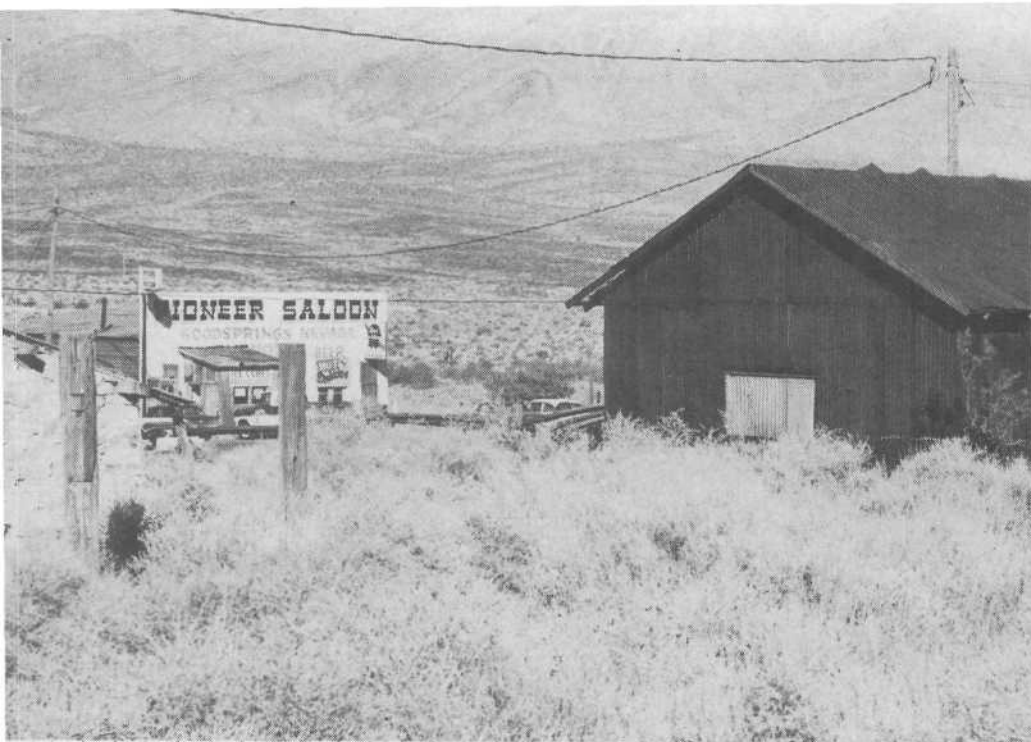
Jones visited the deposits and submitted a report of his findings to Brig-

ham Young. After reading them, Young directed Jones to open up the deposits for the Mormon Church. The first attempt to smelt ore from the "Potosi Mine" met with failure. Ore was then hauled to Las Vegas Way Station where a fireplace had been converted to a furnace. Five tons of lead were smelted but this process also proved unsatisfactory. The latter fact, combined with the isolation of the deposit, slowed mining activity, except for claim locating, during the next 35 years.

Such was the state of affairs when

A typical assortment of orthoclase crystals from Crystal Pass area include some of various color, as well as an occasional Carlsbad twin [left front] or facial twin [right].





Today, as in the past, the Pioneer Saloon is the active place in Goodsprings. At day's end, the local townsfolk gather to refresh themselves and trade information.

cattleman Joe Good settled in the southern end of the Spring Mountains. His cattle roamed a vast range and watered at the spring which became known as Good's spring. During the 1870s, Good built a small, hand smelter to test ores. A little settlement began to develop and, in 1885, a town — Goodsprings — was organized.

Discovery of the Keystone Gold Mine

by S.E. Young, in 1892, reactivated interest in the mining district. Additional gold was located and the Boss and Clementena Mines soon were in production. A 10-stamp mill was built at Taylor's Well. Again, a small settlement rose and was appropriately named "Sandy." A small mill was also built at Goodsprings. Over the next 13 years, considerable gold was produced from the three mines which

The ore bins at the Yellow Pine Mine have withstood the ravages of a harsh desert climate well. Some of the loading chutes from the multi-compartment bin are still in place, appearing as though a truck may arrive any minute for another load.



produced intermittently over the next 50 years.

The turn-of-the-century brought a "turn-of-events" which were destined to make Goodsprings District Nevada's major source of zinc. In 1901, J.F. Kent purchased most of the claims in Porphyry Gulch and formed the Yellow Pine Mining Company. Ore was high-graded and hauled to the nearest shipping point — Manvel, California — a distance of 50 miles. Kent also purchased a leaching mill and converted it to a gravity concentrator.

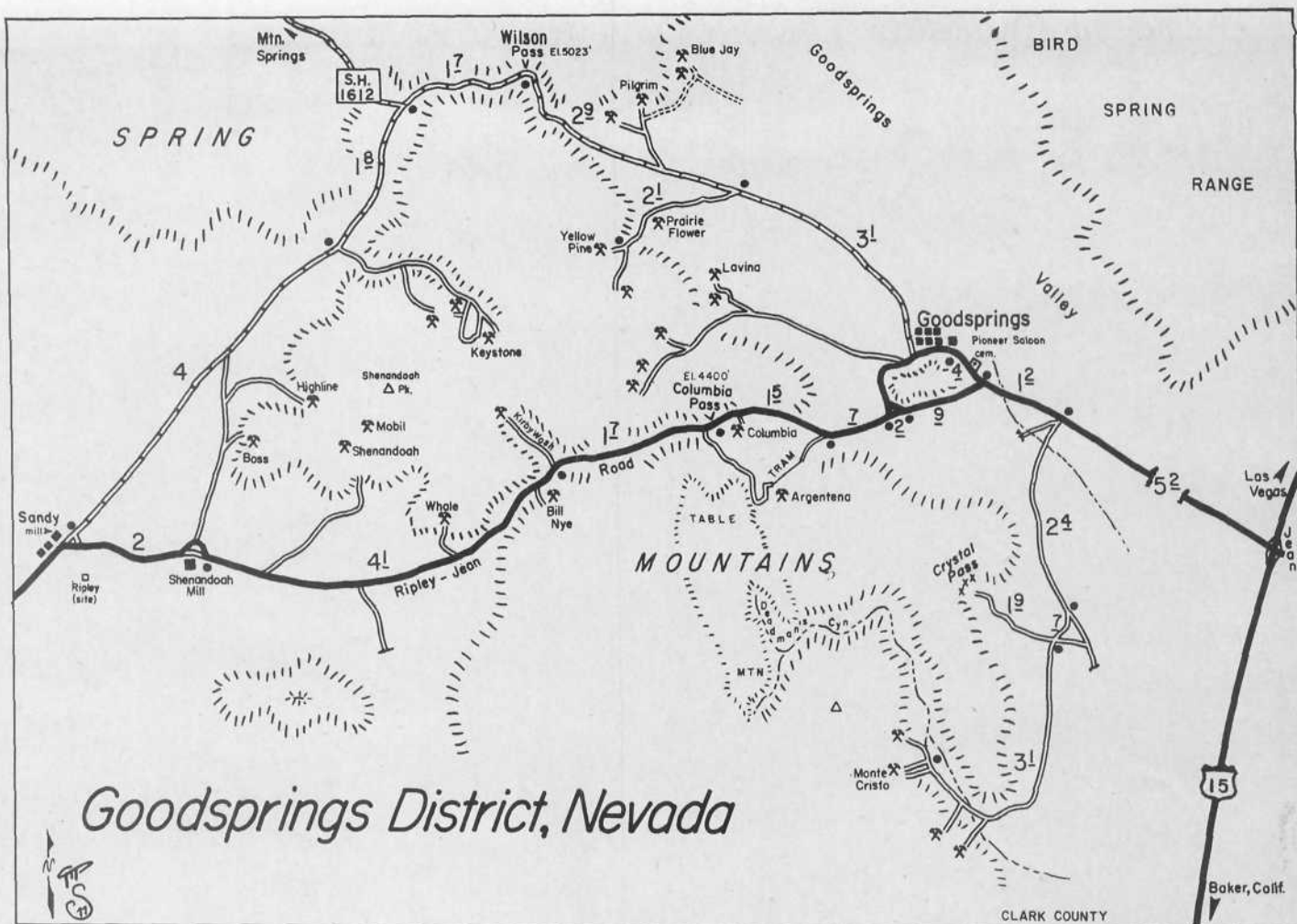
Three subsequent events catapulted the district into prominence. A railroad — the Salt Lake Line — was completed in 1905 through Ivanpah Valley, eight miles east of Goodsprings. Zinc was recognized in the lead ores and an economical method of separating them was quickly developed. With the railroad nearby, shipping costs were greatly reduced. All mining activities picked up and the race for supremacy was on. The year 1905 saw the Potosi Mine become Nevada's largest zinc producer.

The Yellow Pine Mine did not intend to be left behind and a 100-ton, lead-zinc separating mill was built at Goodsprings in 1910. The following year saw completion of the Yellow Pine Railroad — a narrow-gauge to connect with the main line at Goodsprings Junction which was renamed "Jean."

The mines prospered over the next three decades and the settlement's population rose to over 800. A business district consisted of a post office (est. 1899), several stores — including Jess Knight's General Mercantile, hospital, school, two-story "Fayle Hotel" — considered one of the finest in Nevada, weekly newspaper — *The Gazette* (1916-1921) and several saloons including the "Pioneer" which is open today.

The name Knight was well-known in the Goodsprings District. Jesse, a mining engineer and lawyer, had been active in the district's early development. Later, he not only owned the mercantile store and hotel, but served as president of both the Prairie Flower and Yellow Pine Mines. His son, who had worked as mucker and hardrock miner at Goodsprings, also became a lawyer. He rose to prominence in California where he served as Judge, Lt. Governor and finally, as Governor Goodwin J. Knight.

The District saw a short period of in-



activity, then revived in 1922. Gold was the main ore produced in the 30's but, after World War II, many mines were reactivated.

TARANTULA!



Head of tarantula, with fangs distended. Photo by Richard L. Cassell.

by TIMOTHY BRANNING

SOUTHWESTERN desert and mountain regions are home to a number of animal species that are totally misunderstood and wrongfully feared by a great number of inexperienced or misinformed individuals. Perhaps one of the most maligned of all is the desert tarantula, whose uncommon size and hairy, sinister features cause many to withdraw in disgust or horror at the very mention of the name.

Indeed, close examination of the hairy tarantula is enough to make one shudder, and while it is true that certain South American species have been known to inflict painful bites upon humans, the U.S. species is really nothing more than a timid, secretive creature interested only in eking out an existence as best it can in an environment that many animals consider inhospitable at best.

The myth of the tarantula as bedeviler and killer extends into medieval Europe

where a spider called tarentula (*Lycosa tarentula*, which takes its name from the city of Taranto in Southern Italy) was reputed to cause crazed hallucinations and spasms in its victims.

Anyone bitten by the tarentula, so the story goes, reacted with violent sickness, dizziness, fainting, trembling and breathing disorders within a few hours. Next he was seized by a horrifying insanity; he wept, bellowed, gyrated, twisted, turned and assumed the most grotesque poses and gestures imaginable, all the while dancing about in an exhausting frenzy capable of causing death if not relieved within a few days. The only cure was music of a specific kind that would sustain the individual in his machinations until he was able to throw off the poison and regain himself. It was said that a person succumbing to tarentulism, if he survived, would then fall prey to the same madness each year

at the time of his original affliction, and would have to be rescued from the torment with music and dance once again.

Today the Italian tarentula has been identified as a large species of wolf spider capable of inflicting a painful bite, but nothing more. Incredibly, however, the name has somehow been transferred to the American tarantula, a large spider of the family *Avicularioidea* of which there are about 30 species in the U.S. Although there is no relationship between the two spiders, the name has become so ingrained in American speech that even Arachnologists (scientists who specialize in the study of spiders) have joined the crowd and begun using the popular term "tarantula."

Despite its unsavory reputation, however, the bite of the U.S. tarantula is not considered dangerous, causing nothing more than a painful prick, much like being jabbed with a needle. The only

Although he has a frightening appearance, the tarantula is relatively harmless.

real danger, if any, is from possible infection or an allergic reaction to the spider's venom.

The typical U.S. tarantula grows to about three inches at best, with its long bony legs taking up most of the length. They are black or grey, varying shades of brown, or a combination of these colors, usually covered with a coat of fine hairs that often gives them a velvety appearance.

In South America, nearly all tarantulas are tropical creatures living in moist jungle areas and sometimes attaining a length of 10 inches. A bite from one of these species can cause severe swelling and pain. It was long felt that the bite of the South American tarantula could cause the death of a horse, although this has been disproven over the years.

But striking with amazing speed and accuracy, the bite of the North American desert tarantula easily subdues insects of all kinds, their main diet. Wandering about in search of food, or lurking secretively within their holes, they wait for some hapless insect to pass by, and then dash out to grab the victim, injecting a deadly neurotoxin that kills most insects almost immediately.

Because of this, and because of a desire to clear up the many myths that surround the tarantula, a great deal of scientific research has gone into this spider's venom and its effectiveness. In captivity, tarantulas have been known to kill and eat small rodents, lizards, frogs and even young rattlesnakes. A young bird once bitten on the leg succumbed within 24 hours, and a large mole, bitten squarely on the nose, died within 36 hours. A series of experiments forcing a confrontation between a carpenter bee and a tarantula provided researchers with an amazing insight into the tarantula's effectiveness as a hunter.

The sting of a carpenter bee is sufficient to kill even a large tarantula, and when faced with such an adversary, the spider seems to take extra care before making the attack.

Waiting patiently within its hole, researchers noted the tarantula would pass up several instances when the bee



seemed open to attack. Finally, apparently recognizing the opportune moment to attack, it rushed out with amazing dexterity and swiftness, forcing its fang-like chelicerae deep into the bee's neck, just at the nape. Death was almost instantaneous.

Apparently the tarantula, realizing that the bee can easily inflict a mortal wound of its own, waits for just the moment when it can strike the most vulnerable spot, injecting its neurotoxin into the insect's nerve center. A bite in the abdomen, it has been proven, will not kill the tough carpenter bee for several hours, and actually only serves to enrage it and encourage a deadly counterattack, usually with disastrous results for the spider.

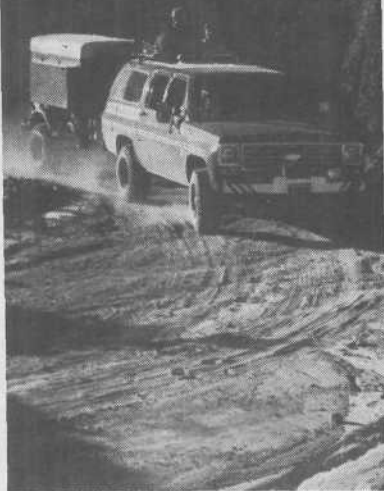
Tarantulas are, in fact, open to attack from a number of adversaries including

snakes, lizards, rodents, scorpions and birds. Because they often leave their homes to forage for food, they are exposed to danger, and frequently must defend themselves.

When attacked, they strike up a defensive posture by rearing up on their hind legs, exposing their large, powerful fangs. From this position, they can protect themselves quite well, providing they are not outmaneuvered. Attacked from the rear, they are hopelessly lost, and because they are slow to move when not within the confines of their tunnels, are quite vulnerable.

But fangs alone are not the tarantula's only means of defense. The hairs which cover most tarantulas (some are practically hairless) are also defensive mechanisms, and contain an irritant that can cause a very annoying itching and

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stinging sensation even in man. When confronted, the tarantula elevates its abdomen and, working its hind legs furiously, scrapes loose hundreds of tiny hairs from its stomach, creating a small dust-like cloud that raises havoc with the spider's tormentors. This method is more than enough to discourage most would-be diners, and many a captured tarantula has been overturned to reveal a bald spot on the abdomen, indicating the frequency with which they employ this method.

Even with these defenses, there is one adversary against which the tarantula seems to be helpless. This is *Pompilidae*, better known as the "spider wasp" or "spider hawk."

An aggressive attacker, the spider hawk comes directly to the tarantula and begins to wrestle with it, rolling over and over on the ground. Once positioned, the spider hawk stings the tarantula in the abdomen, inserting its stinger into the membrane between the legs, grappling and wrestling all the time. Once stung, the tarantula is helpless, soon falling into a stupor and remaining paralyzed for days, even months.

The spider hawk now carries the tarantula (often 10 times its own body weight) to a specially dug grave where it deposits the spider and a single egg, neatly burying both and departing. Once hatched, the *Pompilidae* larva gluttonously devours the tarantula, which, although motionless as a stone, is still alive. In this way, the spider hawk ensures its young of a fresh supply of meat without having to return to care for its offspring, or worry about the tarantula's decomposing before the egg hatches. By the time the spider is completely devoured, the larva emerges as a fully developed spider hawk, ready to mate and begin searching for a tarantula of its own.

Tarantulas are also host to the larvae of a small fly of the family *Acroceridae*, which bites the tarantula, leaving behind eggs that eventually hatch into voracious maggots that eat their way out of the spider. Both enemies are common wherever tarantulas congregate, and cause the deaths of numerous spiders every year.

Providing they can survive all this, tarantulas are known to be rather longevous, the females living as much as 25 years. Males generally die sooner,



either from natural causes, or from attack when they wander about in the summer and fall searching for mates.

Lack of food is not a deterrent to the tarantula, and although they usually gorge themselves each night during the summer, they can survive extended periods of fasting. The record is two years and four months without a morsel. Water, however, is vital, and without it they either die or move to more hospitable environments.

The actual process of eating is a slow one, involving the secretion of digestive fluids to break down the prey into a partially digested jelly that can be sucked into the tarantula's stomach. A tarantula can completely reduce the body of a large mouse after several hours, leaving behind the undigestible bones and hard body parts.

Unlike most spiders, the homes of tarantulas are usually rather simple. They are not great spinners, and unlike their close relatives, the trap-door spiders, are not accomplished engineers. Their burrows are generally abandoned rodent domiciles, although they will dig their own burrows if necessary. The tunnel extends into the ground perhaps a foot or so, usually starting nearly vertical and then bending in a 90 degree arc. They frequently extend under stones and are loosely lined with silk along the top half. The opening is sometimes surrounded with silk, or built up with



Here is a tarantula with her egg sack containing a hundred or more tiny cream-colored eggs.
Photo by George Bradt.

with two special hooks on his front legs, forcing her back and drumming his genital opening against hers. Actual coitus only lasts a minute or two, after which the two part, the female normally letting the male retreat without attacking him.

Following mating, the female spins a spacious blanket of silk within the confines of her abode, lays her eggs atop the blanket, and then covers them with another blanket, binding the sides together to form a loose bag. For six or seven weeks she worries over this bag, occasionally bringing it to the tunnel entrance for sunning. Once hatched, the spiderlings stay with the mother for some time, eventually emerging to fend for themselves. They live under small stones or pieces of wood, finally digging or adopting small burrows of their own. Mortality rate is high, many of the young falling prey to birds and lizards.

stones, sticks and other debris to form a small lip perhaps an eighth- to a quarter-inch high. It is theorized that this lip may afford flying insects a convenient place to land, and thus provide the tarantula with a type of built-in lure.

Once satisfied with a particular home, tarantulas generally stay in one area for their entire lives, becoming more and more familiar with their surroundings with each passing year. They seldom venture more than a few feet from their burrows, and return to them quickly if harassed in any way.

Tarantula homes are typically found in open areas throughout the Southwest, extending as far east as the Mississippi River and north to a line starting at the Missouri/Arkansas border and extending to the Pacific Ocean at San Francisco. They avoid areas of heavy growth, and frequently make their homes beside cultivated fields. Their absence from Florida and the Southeast is considered remarkable, since much of the land in these regions seems ideal for them.

The mating of tarantulas is an uncomplicated affair, beginning when a wandering male encounters a female. Courtship begins with the male touching the female with his front legs in a heavy tapping rhythm. Next he comes around to face her directly, continuing this tapping until the female raises up on her hind legs in a defensive stance. When she bares her fangs, the male grabs them

Full adulthood does not come for 10 years, an inordinately long time compared with most animals. Until the final molt, males and females are indistinguishable. In males, emergence into sexual maturity brings on a sudden reversal in their normally secretive behavior, prompting them to leave their homes and search the countryside for mates. During the summer and fall, they can be seen wandering about in the open, often in considerable numbers.

It is at this time that they can be easily caught. Outside their burrows, they are timid, and can be picked up or swept into a container with ease. Once captured, they make good pets, adjusting well to captivity, and even becoming tame enough to handle. Released in gardens they help to keep out harmful insects and can be observed without subjecting them to the confines of an artificial cage.

The best policy, however, is simply to leave them undisturbed. Casual observation does no harm, but capturing them or digging up their burrows is no help whatsoever. Although tarantulas are now abundant in the Southwest, much of their native ground has already been plowed under, and continued harassment can produce only negative results, eventually endangering the species and causing further disruption of the desert ecology. □

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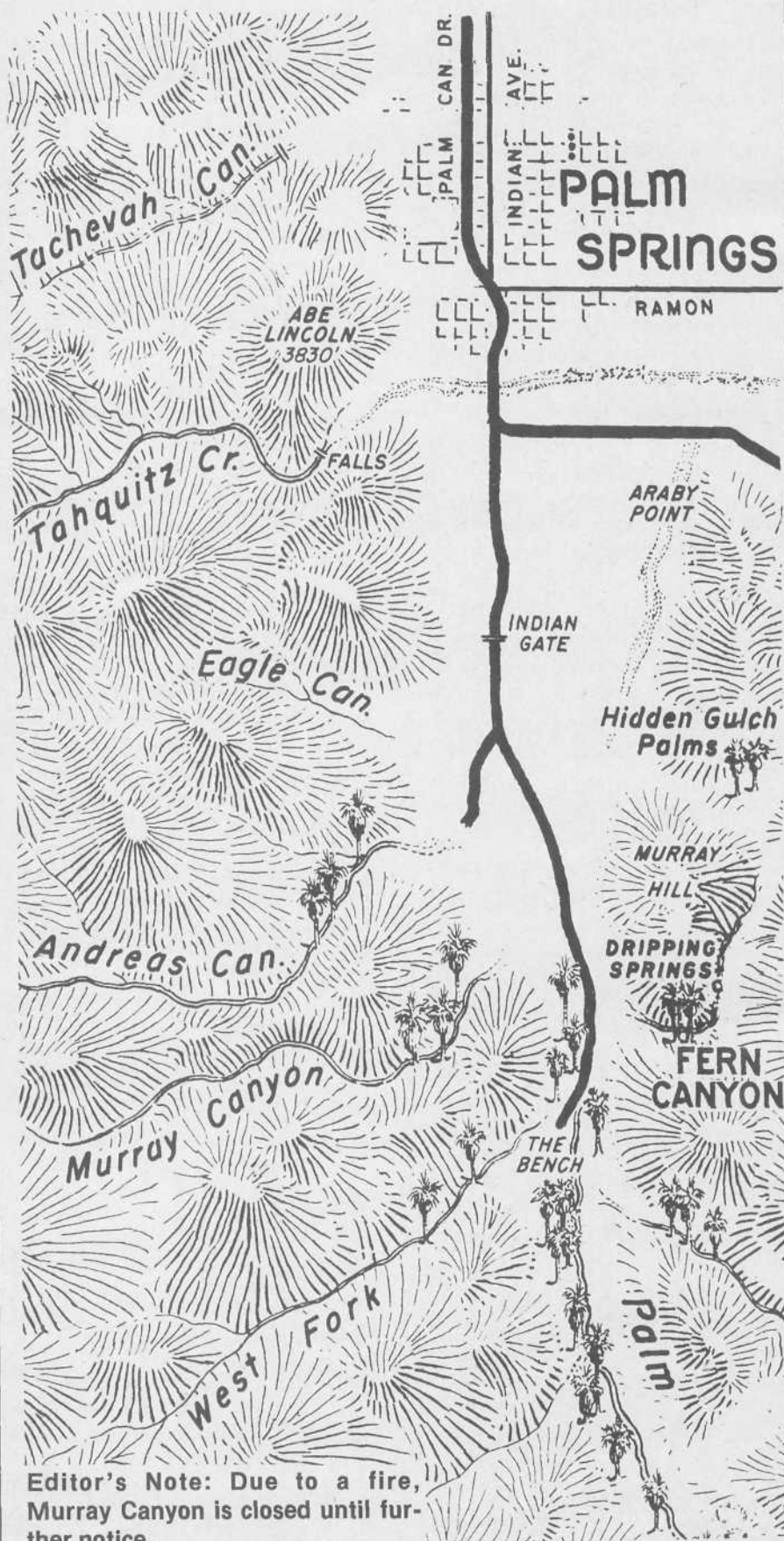
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PALM OASES OF THE CALIFORNIA DESERTS



Editor's Note: Due to a fire, Murray Canyon is closed until further notice.

FROM PUSHAWALLA CANYON in the Indio Hills we move southwesterly a few miles to the precipitous, well-watered San Jacinto Mountains. The desert face of San Jacinto Peak is exceedingly steep, rising from a few hundred feet above sea level near Palm Springs to 10,786 feet at the summit. Heavy winter snows mantle the peak, and in summer its dense coniferous forests and exuberant meadows are bright with wildflowers and talking water.

Cutting the east slope of the San Jacintos is Andreas Canyon, once a summering ground of the Agua Caliente Band of the Cahuilla Tribe. The Indians retreated to the relative coolness of the canyon during the warmest months, returning to the hot springs on the floor of Coachella Valley when winter came. These hot springs — still owned by the Cahuillas and leased by them to developers — are now the Palm Springs Spa. Much of the resort community, in fact, lies within the Agua Caliente ("Hot Water") Reservation, and the tribe has grown wealthy from its holdings.

Andreas Canyon, named for old Cap-

FROM THE MOUTH OF Andreas Canyon a trail strikes out along the foot of the mountains. It leads southward to Murray Canyon, second largest of California's palm oases. I do not know the exact number of trees, for I have hiked only two miles or so up the stream, and the palms extend for about twice that distance, but I would guess that at least 1,000 Washingtonias fringe the winding thread of water born deep in the San Jacintos.

Murray has much in common with its neighbor to the north, Andreas Canyon. Both have hundreds of palms, abundant surface water, lush vegetation, and steep, rough-hewn walls. Both crease the desert face of the San Jacinto Range, both are tributary to Palm Canyon, and both bear the names of men. Murray Canyon honors Dr. Welwood Murray, a Scotsman who established a hotel-health resort in Palm Springs in the 1880's.

It was a cloudy, misty day in February when I took the trail to Murray. I reached the canyon's mouth, dropped to the level of the creek and crossed it for the first time, then headed upstream through

tain Andreas, Cahuilla chieftain of the late 1800's, is also on Indian land, and a toll is collected on South Palm Canyon Drive near Palm Springs. Just beyond the tollgate the paved road forks, the right branch ending a mile away at the mouth of Andreas Canyon.

A sheer, rust-colored monolith soars above the picnic ground at road's end. Near its base are the abandoned grinding holes of the Indians as well as tiny caves with soot-darkened ceilings and dim red pictographs. Hikers can continue upstream from the picnic ground for close to half a mile until a fence blocks further progress. But this half-mile holds some of the lushest, most

*Pencil sketches
by the author.*



Andreas

and

Murray Canyons

by DICK BLOOMQUIST



stands of palms, willows, sycamores, cottonwoods, desert lavender, arrowweed, desert apricot, and mesquite. Some of the mesquites were laden with mistletoe, the berries of which attracted the medium-sized, crested birds known as phainopeplas. We shall see this triad frequently on our wanderings: green mesquite, the coral berries of mistletoe, and the black (or grey) phainopeplas that feed on the berries.

The canyon narrows and curves to the left at the second stream crossing, where a large cottonwood reaches over both creek and trail. The second ford is closely followed by a third, several hundred yards beyond which two Cahuilla grinding holes dimple a boulder on the right side of the pathway. Using stone pestles, the Indian women ground up wild seeds for



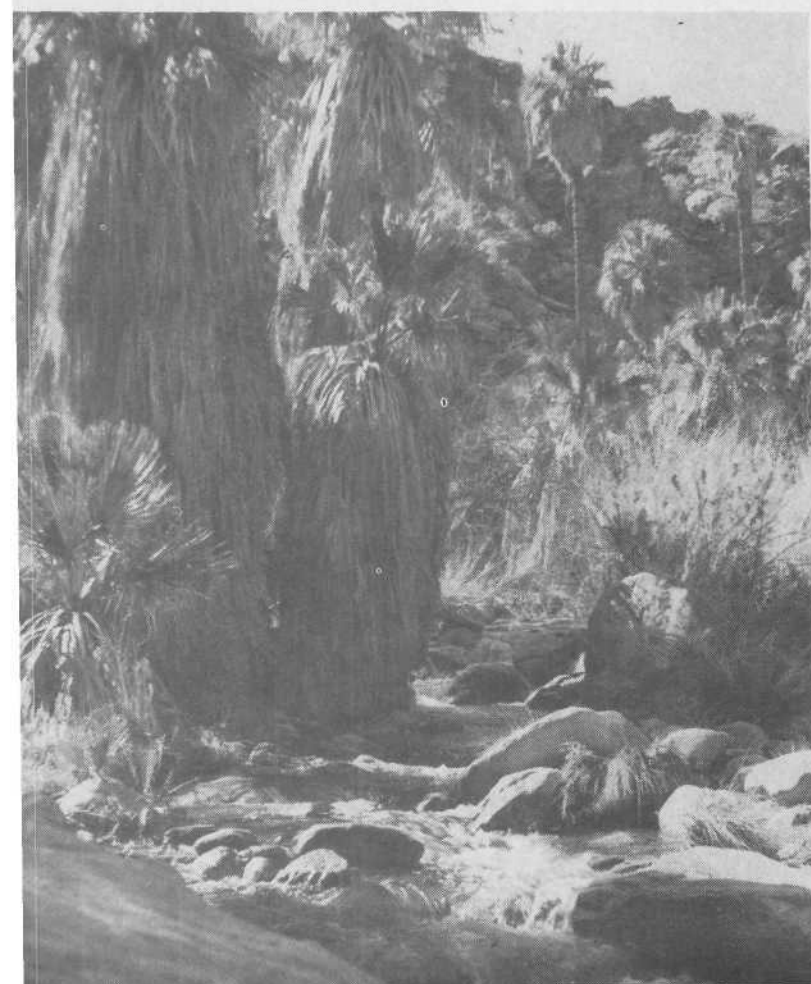
*A waterfall in
upper Andreas
Canyon.*

surprising scenery in the California deserts: a rocky, rushing stream worthy of the Sierra Nevada, and hundreds of Washingtonias — some of them 60 feet tall — growing alongside cottonwoods, sycamores, alders, and willows. Andreas is among the largest of California's palm

Mileage Log

- 0.0 Junction of State Highway 111 and South Palm Canyon Drive in Palm Springs. Drive south toward Palm Canyon on the latter road.
- 1.6 Junction. Bear right.
- 2.7 Agua Caliente Indian Reservation tollgate.
- 2.8 Junction. Bear right. (Left fork leads to Palm Canyon.)
- 3.6 Road ends at picnic ground at mouth of Andreas Canyon. Elevation about 800 feet.

oases, outranked only by neighboring Murray and Palm canyons, by Borrego Palm Canyon, and possibly by Thousand Palms in the Indio Hills. I estimated the number of Washingtonias below the fence at between 630 and 700, with many more above that point. A more accurate



*Murray Canyon
as it appeared
before a
severe fire.*

food in these mortars (*morteros* in Spanish), which were formed gradually during the grinding process. A natural dike has fashioned a pool two to three feet deep here, the water tumbling over the obstacle in a miniature cascade. Up-

Mileage Log

- 0.0 Junction of State Highway 111 and South Palm Canyon Drive in Palm Springs. Drive south toward Palm Canyon on the latter road.
- 1.6 Junction. Bear right.
- 2.7 Agua Caliente Indian Reservation tollgate.
- 2.8 Junction. Bear right. (Left fork leads to Palm Canyon.)
- 3.6 Road ends at picnic ground at mouth of Andreas Canyon. From this point a trail one mile in length runs south along the base of the mountains to Murray Canyon. Elevation where trail enters canyon about 780 feet.

stream, on the far side of the creek, a little spring drips from the bank under the shade of a young Washingtonia — truly an idyllic spot, here in a desert canyon amid shaggy palms and spreading cottonwoods.

count was not possible because of the dense growth.

I climbed out of the creek bed a little way before reaching the barricade. A low bench paralleling the stream on the left provided easy walking. Here, away from the water, more typical desert vegetation was the rule: cholla and hedgehog cacti, brittlebush, desert apricot, creosote, and burrobrush. From the barrier I looked upstream to a lone palm standing tall in the "narrows" of Andreas. This was the tree called *Reina del Canon* — "Queen of the Canyon" — by J. Smeaton Chase in his 1919 classic, *California Desert Trails*.

Palm Springs and most of the Coachella Valley have changed greatly in the years since Chase came this way. The quiet charm which prompted him to call Palm Springs village "Our Araby" has yielded to resorts, subdivisions, and heavy traffic. But many of the wild palm groves rimming the valley have retained their allure. Let us continue along the desert trail, for south of Andreas are the two large oases in California—Murray and Palm canyons. □

Soon the watercourse veers sharply to the right, washing the feet of a 60-foot cliff. Two young palms have gained a foothold on the lower face of this crag, and moisture oozes from near its base. The path divides above this point; I followed the left-hand fork up the mountain side for a few yards until a view of Coachella Valley and the Little San Bernardino Range opened up, then backtracked to the canyon route.

I now hiked nearly two miles up Murray and was nearing the end of the improved trail. After fording the creek a seventh time, I came to a picket line for horses strung between two stout palms. Beyond, the pathway quickly deteriorated. The clouds, which earlier had released only some vagrant mists, were now wringing out real rain, so I returned to the picket line and the shelter of an overhanging rock. The sound of raindrops on palm fronds, the smell of moist vegetation, moist earth, made the interlude a memorable one. Soon the shower was done, and I headed down the canyon trail in the fragrant aftermath of the storm. □

BOOKS FOR BAJA LOVERS

NEW BAJA HANDBOOK for the Off-Pavement Motorist in Lower California by James T. Crow. Discover the real Baja that lies beyond the edge of the paved road, the unspoiled, out-of-the-way places unknown to the credit-card tourist. The author, drawing from his extensive travels in these parts, tells where to go, what to take along, the common sense of getting ready. Illustrated, paperback, \$3.95.

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BAJA CALIFORNIA GUIDEBOOK by Walt Wheelock and Howard E. Gulick, formerly Gerhard and Gulick's Lower California Guidebook. This totally revised fifth edition is up-to-the-minute for the Transpeninsular paved highway, with detailed mileages and descriptive text. Corrections and additions are shown for the many side roads, ORV routes, trails and little-known byways to desert, mountain, beach and bay recesses. Folding route maps are in color and newly revised for current accuracy. Indispensable reference guide, hardcover, \$10.50.

BAJA [California, Mexico] by Cliff Cross. Updated to include the new transpeninsula highway, the author has outlined in detail all of the services, precautions, outstanding sights and things to do in Baja. Maps and photos galore, with large format. \$4.95.

PALM CANYONS OF BAJA CALIFORNIA by Randall Henderson. The beautiful palm canyons and isolated areas of Baja California are described by the late Randall Henderson, founder of DESERT Magazine. Although these are his personal adventures many years ago, little has changed and his vivid writing is alive today as it was when he first saw the oases. Paperback, illustrated, \$1.95.

A FIELD GUIDE TO THE COMMON AND INTERESTING PLANTS OF BAJA CALIFORNIA by Jeanette Coyle and Norman Roberts. Over 250 plants are described with 189 color photos. Includes past and present uses of the plants by aborigines and people in Baja today. Scientific, Spanish and common names are given. Excellent reference and highly recommended. High-quality slick paperback, 224 pages, \$8.50.

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BYROADS OF BAJA by Walt Wheelock. In addition to describing the many highways now being paved, this veteran Baja explorer also tells of back country roads leading to Indian ruins, missions and abandoned mines. Paperback, illustrated 72 pages, \$1.95.

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Behind the Scenes in Joshua Tree National Monument

by JOE KRAUS

JOSHUA TREE National Monument: You say you've been there before? Look again! There's a whole new world in the outback — those areas away from the roads and campgrounds.

And for those less rugged — traveling is not all that difficult. You don't have to climb any jagged mountain peaks or scoot down a slippery hillside on the seat of your pants — if you don't want to.

In beautiful California desert country, the 870-square-mile Joshua Tree National Monument is sandwiched between Indio and Twentynine Palms, 140 miles east of Los Angeles.

*Majestic Joshua Tree against
a clear high desert skyline.
Photo by Howard Neal, Arcadia, Calif.*

Here you can get away from it all and really feel isolated from civilization. Here you can experience the best of what the high desert regions offer — abundant plant life, ideal year-round weather conditions, giant rocks, mountains, canyons and valleys, unmatched in their beauty.

History buffs can find remnants of the Old West in the monument's mining region and evidences of early-day cattle ranching. Students of Indian lore will find not only prehistoric campsites but some of the tools and rock art the early people left behind. And for youngsters there's the fun of sliding down the side of a sand dune or scrambling over the giant boulders, characteristic of the area.

You can drive there easily enough and see quite a bit of the monument through your car window. This, however, is not the reason the area is such a favorite with Scouts, Sierra Club members, equestrian groups and other outdoor-oriented organizations. The reason for the popularity with these groups is that the monument is ideally suited for back country travel.

The focal point of this is the 29 miles of the California Riding and Hiking Trail which passes through the monument's most scenic areas.

It begins in the western portion of the monument in the Covington Flat area. It then travels eastward past the Ryan Campground and Sheep Pass area to Jumbo Rocks before the trail turns northward, out of the park boundaries. For a hiker it would take anywhere from two to three days to traverse the 29-mile trail. You can, however, pick it up at several points, allowing for shorter hikes of four, six, seven or 11 miles.

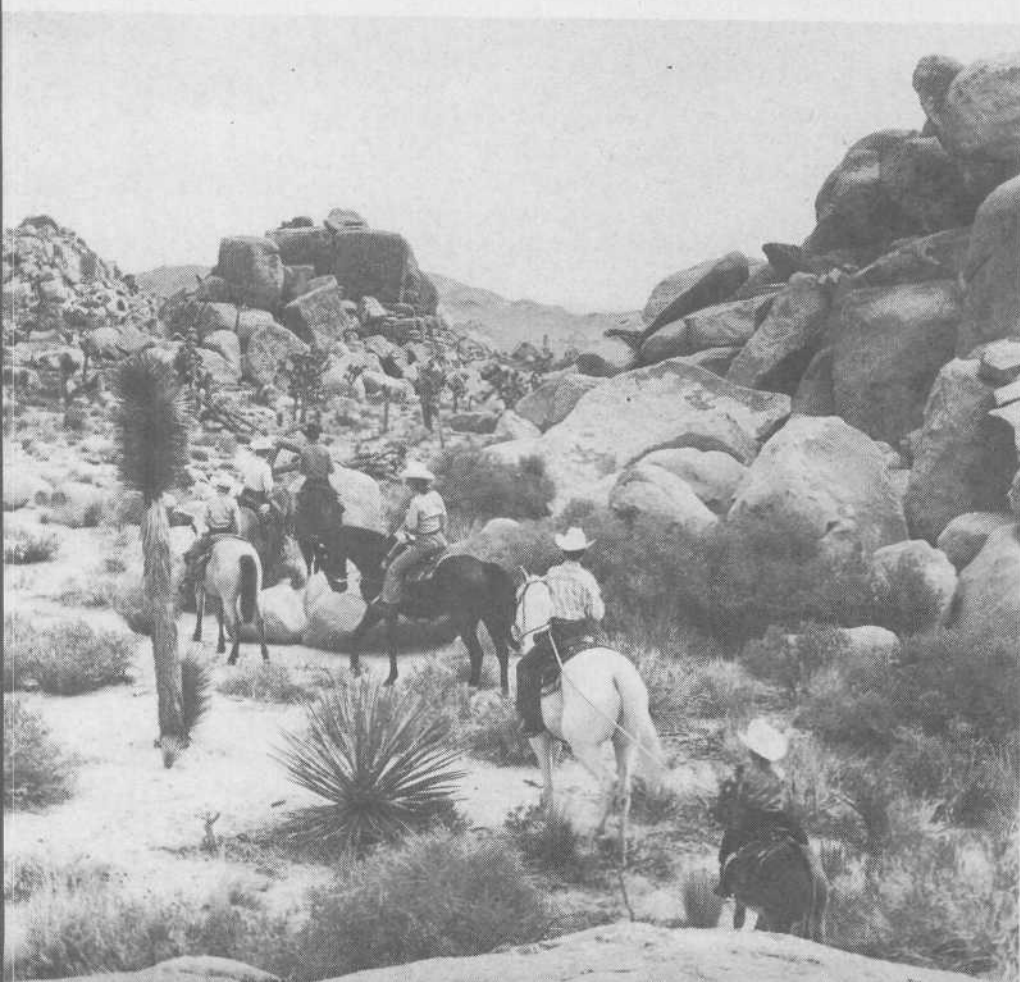
There are some interesting hikes as well out of Cottonwood Spring in the southeastern portion of the monument. Largely man-made, the Cottonwood Spring area impresses even the most casual visitor with the richness and diversity of its bird life. One of the most interesting here is the Lost Palms Oasis Trail, a demanding four-mile trail (eight







Above: Mike, Tommie and Dennie explore an old cave. Below: The Wiggs family of Banning, California enjoy a mounted outing in Joshua Tree National Monument.



miles round trip) through canyons and dry desert washes. It leads to one of the most beautiful native fan palm oases in California and the largest group of palms in the monument, 110 trees in all. A smaller group of palms can be found in Dike Springs, located in an upper canyon adjacent to the main trail.

The remains of a mining operation that was active in the 1920s can be seen on the half-mile Winona Mill Site Trail. This trail begins at the Cottonwood Spring campground and winds through the desert landscape to the mill site used for the crude refinement of gold ore from nearby mines. The remains of water tanks and the foundations of several buildings are all that remain of the once active site. One, however, will find many exotic plants in the area, originally planted there by the early inhabitants.

Another trail leading eastward from the mill will take the back country traveler through a number of small canyons and washes to Mastodon Peak, so named by the miners for its resemblance to a prehistoric elephant's head and trunk. Moderately strenuous, the trail offers excellent views of the area.

The remains of an old freight wagon road can be explored on another hike, also from the Cottonwood Spring area. The trail follows the wash south of the spring. The old road can be seen about one-fourth mile on this trail. It was built by the miners in the 1880s.

On down the trail another quarter mile you will come upon the remains of another mill used to process gold ore from nearby mines. The area was abandoned in the 1930s.

Up in the far northern section of the monument at 49 Palms Oasis is another interesting hike. The 2.8 mile round trip hike leads to several stands of fan palms and pools of water. The oasis is positioned on a steep canyon wall. The moderately strenuous hike begins at the parking area on Canyon Drive, four miles west of the community of 29 Palms, off Highway 62.

A strenuous three-mile round trip hike that offers some most interesting sights is the Ryan Mountain Trail. The one and one-half mile trail leads to the summit of Ryan Mountain (5,470 feet). Here are excellent views of the Wonderland of Rock area as well as Queen, Lost Horse, Hidden and Pleasant Valleys. You can pick up the trail at Ryan Mountain Parking area or Sheep Pass Campground. The

trip (on foot) takes about two to three hours.

Another three to four hours of moderately strenuous hiking will be required on the six-mile round trip Lost Horse Mine Trail. You can reach the trail from the parking area on Keys View Road. Here, the hiker will find a 10-stamp mill and other evidence of past mining activities. The moderately strenuous hike will take the visitor up to an elevation of 5,178 feet.

On the west side of Ryan Mountain you can get a good indication of the turmoil that occurred when the giant boulders, scattered over a large part of the monument, were formed.

The darker rocks were created some 500 million years ago under great pressures and high temperatures resulting from the shifting of the earth's crust along great fractures. Later, molten rock of a slightly different composition was forced into some of the fractures to form dikes of contrasting color. From vantage points you can see the contact between the two kinds of rock. Subsequent gradual uplift speeded up weathering and erosion of the rocks.

To get a good look at the plant life of the monument, there is no better way than by hiking the many nature trails. There are nine of them in all, most less than a mile in length. These include Cholla Cactus Garden and Cottonwood nature trails as well as Arch Rock, Cap Rock, Indian Cove and Jumbo Rocks nature trails. Others include Barker Dam, Hidden Valley and Park Headquarters trail to Twentynine Palms oasis.

Joshua Tree National Monument was originally set aside because of the notable variety and richness of its desert vegetation. And in a real sense it is a preserve of a characteristic desert scene. The monument's nature trails bring out the best of what there is to offer.

Not to be overlooked, however, is the monument's animal life, more abundant than in most desert areas because of the higher altitudes and a cooler, more varied climate. You'll find in good supply coyotes, bighorn sheep (if you can spot them), kangaroo rats and jackrabbits. But besides these, 38 species of reptiles and amphibians and 249 kinds of birds have been reported in the monument. It's guaranteed even if you don't see many people on these backcountry trails — you won't be lonely. □



Above: Jack and Kathy Wiggs with their four boys, Mike, Tommie, Dennie and Timmie, [age 4, on the pony], hit the trail among the Joshuas. Below: Mike stops for a long pull on the canteen.

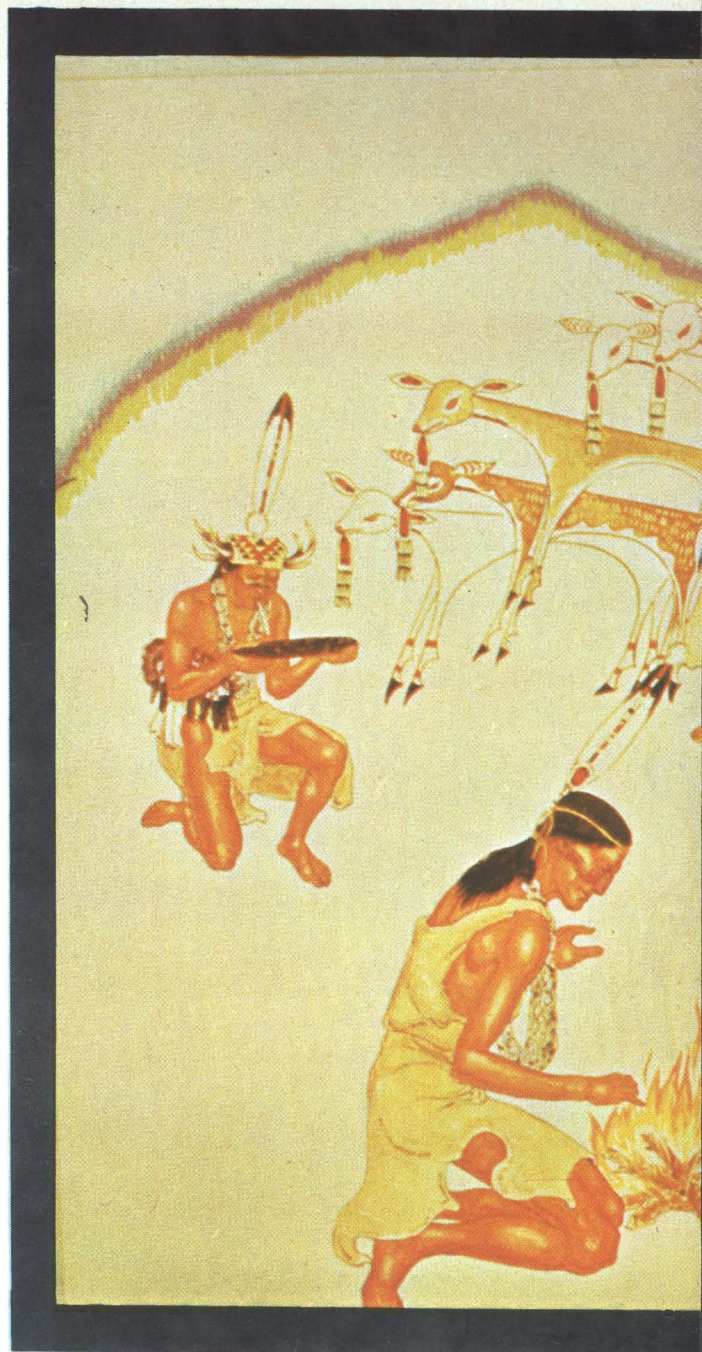


WESTERN ART

The Sacred Deerskin Dance of the Hoopa, Karok and Yurok Indians of Northern California as painted by Waano-Gano, noted Cherokee artist. The dance is part of a ceremony known as the "Pick-e-owish," and consists of song-prayers and dance-prayers in thanksgiving for all benefits received and in appeal that good may come to all beings everywhere.

The dance is given every other year near the end of August. The Klamath River Indians are divided in five districts. A portion of the ceremony is performed in each of the tribal locations along 150 miles of the river. The entire ceremony lasts about three weeks.

Joe Waano-Gano, AICA



JOE WAANO



- GANO

JOE WAANO-GANO, one of the foremost Indian Artists of Modern times, is a picturesque figure in the western art world—a writer, a tribal dancer and lecturer as well as

a versatile painter.

Mr. Waano-Gano, a member of the Cherokee Tribe, has really lived the life he paints. From earliest boyhood he has traveled and lived among the Indians of the West, studying their tribal history, sketching their costumes and dances, recording their symbology

and folklore. Out of this rich store of knowledge has come some of the finest authentic paintings since Remington and Russell first began to record the life and color of the Old West. His characterizations of the Indian in terms of art expression and in the spoken word are gems of historic value. His



"Nunny," [Mrs. Wanno-Gano], 16"x20", Oil, Karok-Yurok Indian, Klamath River, Northern California. Painted in the moonlight.

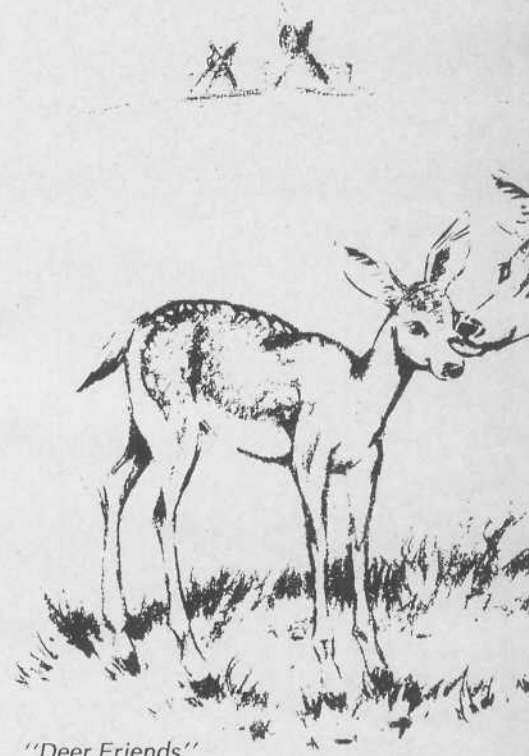
Indian portraits are not just mere surface likenesses but creative character studies revealing qualities of the inner animating spirit of the subject.

Mr. Waano-Gano is not only a gifted portrait artist whose paintings authentically interpret the spirit of his people, but a landscapist whose landscapes reflect both love and association with the outdoors.

Mr. Waano-Gano is best known for his nocturnes which he actually produces out of doors at night, and for his Indian portraits which, to a remarkable degree, penetrate the calm austerity of the Indian and capture his true personality. He has worked in almost every phase

of art—pictographs on cliffs in southern Utah as a boy—clay modeling, sandstone sculpture—watercolors, tempera, pastel and charcoal have been employed in addition to his masterful use of oil.

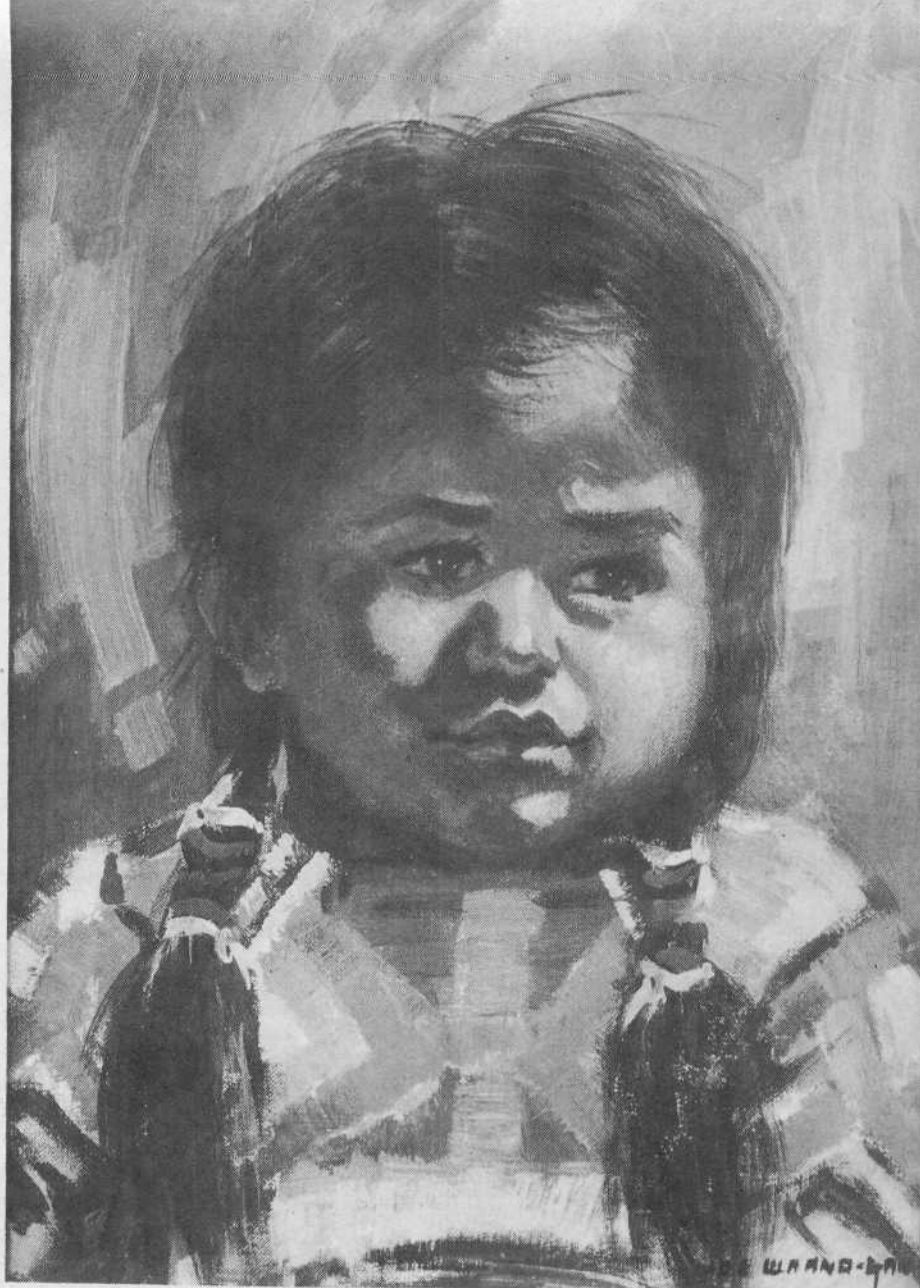
He is a member of many major art clubs including Valley Artists Guild, American Indian and Cowboy Artists, Showcase 21, California Art Club, Artists of the Southwest and the American Institute of Fine Art. He is listed in "Who's Who in American Art," "Indians of Today," "Who's Who in California," etc. He has held over 118 one-man-shows, painted 27 murals and won over 100 prizes and awards.



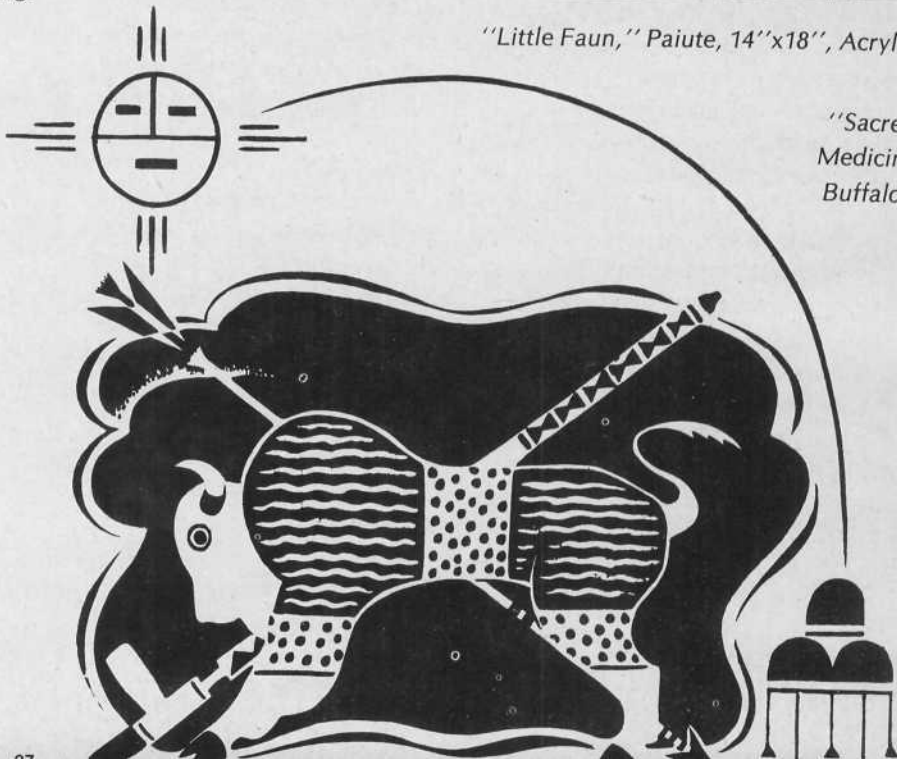
"Deer Friends"



"A Woman of Pachunga," 11"x14", Pencil drawing.



"Little Faun," Paiute, 14"x18", Acrylic.



"Sacred
Medicine
Buffalo"

COACHELLA Valley CAMPING

by BILL JENNINGS

IT USED to be, some decades ago, that you could pull off the narrow two-lane highways almost anywhere and throw down a bed roll to camp peacefully—and legally—in California's beautiful Coachella Valley perimeter, but no more!

It's not that the area is unfriendly; valley residents are still among the most hospitable you'll find anywhere in the West. But there's more improved private property, agricultural trespass controversies and, since last September, some sanded-up canyons and some new gullies as the result of a 200-year record storm.

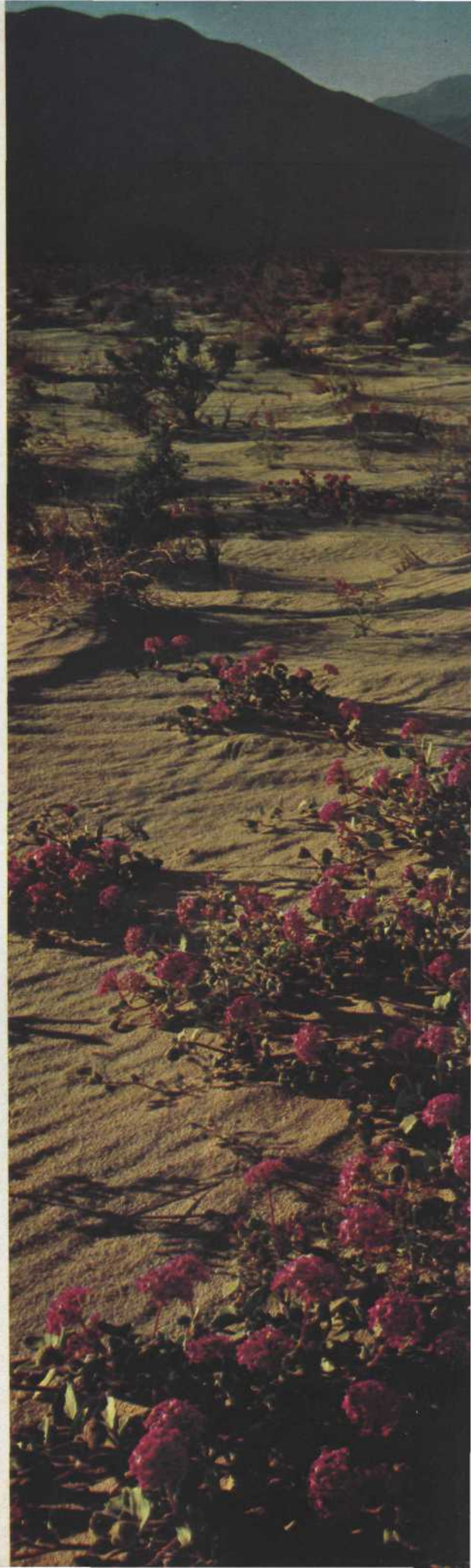
There are still some well-hidden yet surprisingly accessible off-road sites. It's best that you have a stout four-wheel-drive or two-wheel-drive with good flotation and power and a lucky streak. Many of the remaining campsites are southerly along the western and eastern escarpments of the below-sea-level Salton Basin. Local inquiry is urged because conditions change overnight sometimes.

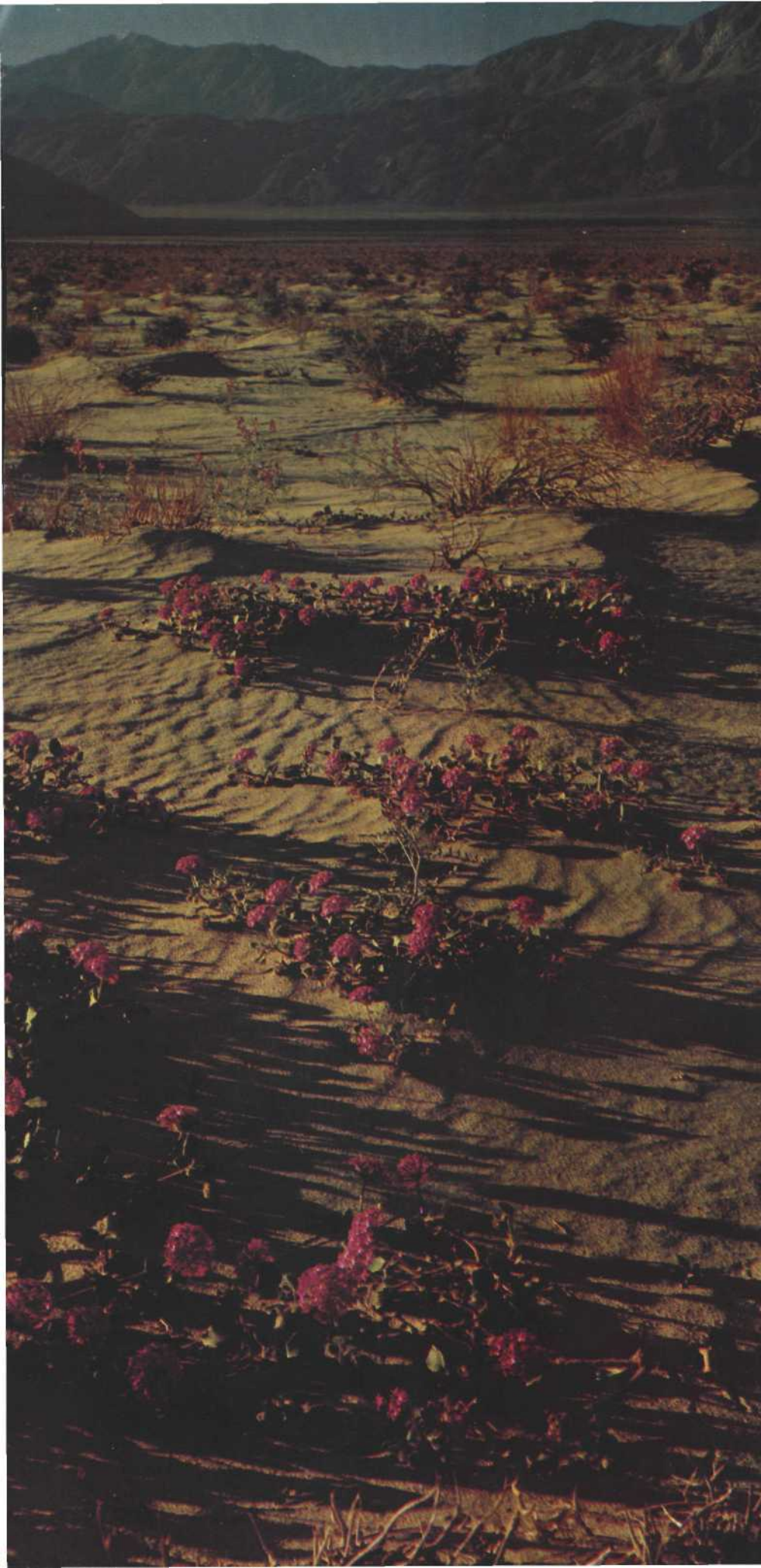
For example, one recommendation planned for this article was scenic Martinez Canyon and the lower reaches of its companion, Agua Alta, but nature and barbwire changed that shortly before this story was field-tested.

Martinez, largest and longest of all the canyons draining the Santa Rosa Mountains, was one of several focal points for an estimated 10-15 inch rainfall in less than eight hours last September 9. The big alluvial fan has new gullies 10 feet deep in places and some of the old sand track reaching northward to Avenue 66 just west of Valerie Jean has disappeared in loose, newly-washed sand.

Another deterrent is the presence of new "No Trespassing" signs set by a rancher who apparently owns most of the Avenue 66 frontage from Jackson Street east toward Valerie Jean. The area is accurately marked and patrolled, as some would-be Martinez visitors learned last winter.

One legal way to reach the canyon mouth—where the ownership is federal and state—is via Avenue 72 from State Highway 86 three miles south. Even here the route is questionable, as well as rocky, and it might be a good idea to get current information from the Indio office of the Riverside County Sheriff's Department.





Sand verbena graces the valley floor when the rains and warm sun germinate the dormant seeds. Photo by David Muench, Santa Barbara, California.

Martinez is not the only scenic mountain canyon emptying into the Salton Sea. From Interstate 10 and State Highway 111 south and east a partial list includes:

Snow, Falls, Blaisdell, Chino, Tachevah, Tahquitz, Palm, Bradley, Magnesia, Cat, Dead Indian, Carrizo, Deep, Bear, Devil, Guadalupe, Toro, Agua Alta-Martinez, Barton, Sheep, Travertine Palms, Wonderstone and another Palms. The last four named rise in Anza-Borrego Desert State Park, south of the Imperial County line.

Of all this group, the mainly public-access areas include Bear (La Quinta), Devil, Guadalupe, Toro and the four park areas, and are passable generally to four-wheel-drive. Sand buggies or other short-coupled, light two-wheel-drive rigs can make it sometimes, and so far.

The most consistent source of expert advice on travel and camping conditions off-road in the Coachella Valley is the Riverside County Parks Department, which maintains an office at Lake Cahuilla, at the west end of Avenue 58 off Jefferson Street six miles south of Highway 111 between Indio and Indian Wells.

District Ranger Jim Davis and his staff can assist with free drinking water and equally welcome advice. They also are close by the approaches to Devil and Guadalupe canyons, via county-owned land adjacent to the westside gravel pit. These two canyons are negotiable for the first two miles through the alluvial fans that guard the entrances of all Coachella Valley canyons. Water again is the limiting factor for long-term use, but at least both canyon mouths can be reached — with some care — by two-wheel-drive vehicle. Even a rugged Jeep won't help much past two miles due to truck-sized boulders and equally grim rock falls across the gorges.

A continuous series of flood control levees inhibit but do not totally block access to Toro and adjoining canyons west of Thermal. There are legal tracks across the levee at several points, or a careful driver can head south from



This Indian trail shrine marks the summit of the little pass between Deep Canyon, in near background, and La Quinta cove. San Jacinto Peak is in far distance. This area is adjacent to the University of California's Boyd Deep Canyon Desert Research Center, yet open to hikers only a mile from camping areas in Bear Canyon.

Guadalupe parallel and inside the levee catch basins.

South of Martinez, Sheep and Barton offer the best camping sites, although access is over boulder-strewn fans that defy your springs and endanger your oil pan repeatedly. The Travertine Point area has many wind-protected coves, a few isolated palm stands and altogether too much graffiti, but the overall beauty is worth the temporary eyesores.

Below Travertine, the camper is again

in the perimeters of Anza-Borrego State Park and perhaps inquiry at park headquarters in Borrego Springs will save some sand-digging or fruitless forays into forbidding areas that seem accessible on the average gas station road map. Here, another note of caution: beware of such maps for offroading. It's a good idea to purchase a store of topographic maps for the area you wish to travel. An index to such charts is available at the same place you buy the maps and should be carried as a clue to which

maps you'll need next trip.

If you still seek a campsite south of Travertine Point that's outside the park you'll find a few that permit two-wheel-drive travel. One of the best of these is Palm Wash, the last big arroyo on the right as you travel south before reaching Salton City. North Marine Drive leaves the highway on the south edge of this wash and many side trails lead into the wash proper. You can drive about four miles west before reaching the park boundary, which you can spot easily by noting the position of the telephone repeater tower to the south. When it is apparently parallel with your westbound course you're likely in the park—where open fires are not permitted.

Back in the Coachella Valley area proper, on the east slopes, you'll find many inviting washes, several with reasonably hard surfaces, opening to the east through the siphons or wash crossings along the Coachella branch of the All-American Canal. Heed the no trespassing signs along the canal access road, but you can cross the big dig at many points legally from the county line, near Hot Mineral Spa northward to State Highway 195 east of Mecca.

The only historic area along this route is Salt Creek and nearby Dos Palmas. The old Bradshaw stage route heads eastward from the valley to the Colo-

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rado River through this natural pass and Dos Palmas was a relay station a century ago. Again, much of the approach threads private land so heed the signs.

Into the canyon of Salt Creek proper the way is easy for most vehicles, with occasional sandy spots caused by past flooding.

On your right, to the south, is the well-marked perimeter of the Navy's Chocolate Mountains Aerial Gunnery Range, with no need to remind you to stay out! Frequent aerial rocketry and bombing displays will be graphic advice enough.

North of Dos Palmas, entry into the Orocochia Mountains is dictated in part by the U.S. Bureau of Land Management, principal guardian of this interesting and scientifically important area. It's a good idea before starting out to check out the latest maps of the Desert Plan restrictions either at the agency's El Centro field office or the Southern California district office in Riverside.

The Orocopias were used for basic training sites for the nation's astronauts before their landings on the moon. That should give you an idea of the terrain conditions.

Highway 195, formerly the main route from the coast to the Colorado River, is a popular parking place for many overnight and weekend campers. Its shady ironwood trees and scenic crannies offer rest and seclusion for all kinds of visitors, from Jeepers to amateur artists and cross-country travelers. Again, there is no water nearer than Mecca or Chiriaco Summit, the west and eastern entry points for this scenic area. Hard by the paved road are several off-roaders' tracks into side washes. Be careful following these unless you have the proper equipment. Soft sand and hard rock are the principal ingredients of the so-called roads.

One of these, near the upper end of the canyon, leads to the Hidden Spring area but should not be attempted except on foot by the average visitor. Hidden Spring has been designated for protective custody by BLM and eventually may have its own interpretative exhibits and nature trails. At present it is primitive.

Temporarily closed last winter due to flooding, the county's Mecca Hills Park offers a scenic and restful side trip through a pastel-colored, narrow-walled canyon not open for camping at present.



Just off Box Canyon in the Mecca Hills is the jumping-off point for Hidden Spring. Camping sites abound in this readily accessible area along State Highway 195 20 miles southeast of Indio. Portions of the canyon can be negotiated by two-wheel-drive with some care. Photo by Bill Jennings.

Entry is over a well-marked and maintained dirt road that leaves 195 east of the canal flood control levee.

North of 195 entry into the Mecca Hills is difficult other than via the park road. There is a perimeter trail along the uphill side of the canal but access is generally restricted to the southern (195) or northern (Interstate 10) ends.

Thermal Canyon, about halfway from Box Canyon northerly toward I-10, is a scenic pathway clear into the high desert. A Jeep trail leaves the canal right-of-way near the east end of Avenue 54

just south of Coachella but entry may be an obstacle course. Thermal Canyon is one of the few washes that bisects the Mecca Hills and reaches into the Little San Bernardino Mountains north of I-10. The upper canyon can be reached from the freeway near the Cactus City rest stop or you can use the Colorado River Aqueduct service road west from the Cottonwood Springs Road entry into the Joshua Tree National Monument.

North of I-10 old Dillon Road, once the major supply route to Metropolitan

Continued on Page 38

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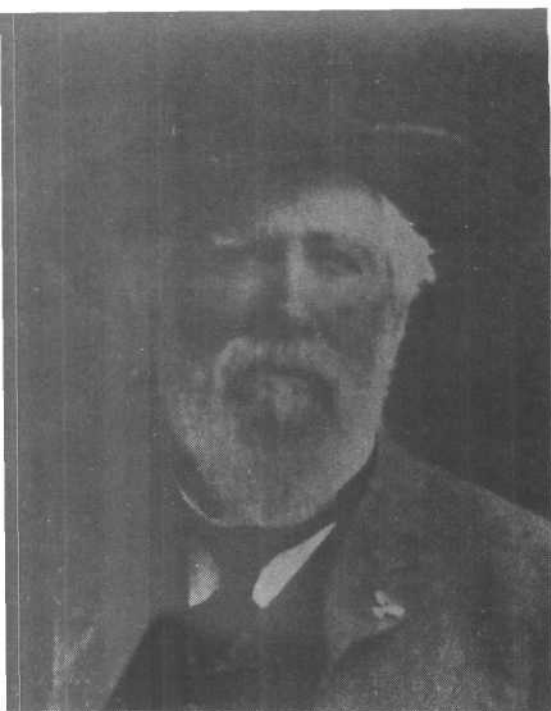
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Charley Clusker, the man who made the *Lost Ship of the Desert* famous. Portrait from *Ingersoll: Century Annals of San Bernardino County*, 1904. [From screened halftone.]

Charley Clusker and the Lost Ship

by
**HAROLD O.
WEIGHT**

SOMEWHERE in the great Salton Basin, or the Laguna Salada or the delta of the Colorado River, lie the bones of an ancient ship stranded, abandoned and forgotten unknown centuries ago — the *Lost Ship of the Desert*. Now hidden, now exposed, subject to the sands and winds, the cloudbursts and the floods, it has been seen and reported by Indians and prospectors and travelers through more than 100 years. Seen — but almost always beyond reach. Reached — but only under circumstances that made investigation impossible. Found — but always lost again.

The legend seems immortal in the folklore of the far Southwest. But was there — is there — a *Lost Desert Ship*? You say yes? Prove it. You say no? Prove it. Impossible? Prove that!

One thing is certain: Through the long years there have been many and many a true believer. One of them, Charles Carroll Clusker, sought the *Lost Ship* so urgently that his name is now inseparable from its story.

Charley became involved in 1870, which turned out to be the Year of the *Lost Ship*. Much of the excitement and most of the ship's wide fame evolved through newspaper stories published through the fall and winter of that year. Most of those stories dealt with Charley Clusker's search for it.

According to one news story, the Desert Ship was located among these mud volcanoes at the southern end of the dry lake. They are now covered by the rising waters of the Salton Sea.



Stories of the Lost Ship in 1870 identified its location as in the dry lake 30 to 45 miles west or southwest from Dos Palmas oasis, a way station on the Bradshaw Road. Now there are many palms.

The Los Angeles News printed the trigger story — or at least the first one widely circulated — in late August:

“INTERESTING DISCOVERY: By many it has been held as a theory that the Yuma desert was once an ocean bed. At intervals, pools of salt water have stood for a while in the midst of the surrounding waste of sand, disappearing only to rise again in the same or other localities. A short time since, one of these saline lakes disappeared and a party of Indians reported the discovery of a ‘big ship’ left by the receding waters. A party of Americans at once proceeded to the spot and found embedded in the sands the wreck of a large vessel. Nearly one-third of the forward part of the ship, or barque, is plainly visible. The stump of the bowsprit remains and portions of the timbers of teak are perfect.

“The wreck is located 40 miles north of the San Bernardino and Fort Yuma road and 30 miles west of Dos Palmas, a well-known watering place on the desert. The road across the desert has been traveled for more than 100 years. The history of the ill-fated vessel can, of course, never be known, but the discovery of its decaying timbers in the midst of what has long been a desert will furnish savants the food for discussion and may perhaps furnish important aid in the elucidation of questions of science.”

There is detail in that story — teak timbers, broken bowsprit, a third of the ship showing. The reporter must have interviewed someone. Which makes it all the more curious that no member of that “party of Americans” was identified in the original story or, to my knowledge, in any that followed. But it was exactly the sort of story editors clip and reprint, and it spread swiftly from newspaper to newspaper. The San Bernardino *Guardian* carried it on September 10, and probably that is where Charley Clusker saw it. There is no indication that he was a member of that first Lost Ship expedition, but he led the second, third and fourth.

Clusker already had lived a life adven-



turous enough for a dozen men. He was born in Richmond, Kentucky March 10, 1810. In Cincinnati, when the Mexican War began, he enlisted in the First Regiment, Ohio Volunteers. Serving under General Zachary Taylor, he took part in the battles of Brownsville, Matamoros, Monterrey, Cerro Gordo, Vera Cruz and Buena Vista, and the storming of Chapultepec at Mexico City.

He had heard much about California in Mexico, and when mustered out proceeded, with five comrades, to visit it. Outfitting at Little Rock, they rode to Santa Fe and took the Gila Trail, which, in the time of the Gold Rush emigrants, would become famous as the dangerous Southern Route. Much of it threaded hot, thirsty and little known deserts. It crossed the heartland of the fierce Apaches. Along it there were no towns, no stations, no military posts. Charley and his small party crossed without mishap. Game was abundant, water sufficient, and though they saw many Indians, they were not challenged.

Clusker arrived in Los Angeles in the early spring of 1848, but apparently the easy-going little Mexican town was a disappointment. Two weeks later he was on the way back, safely recrossing the same dangerous wilderness — this time alone. When California gold started the East heading West, Charley followed the Overland Trail back to California, cross-

ing the Sierra Nevada by the Truckee route. He staked his first claim at Coloma, where James Marshall had made the original strike. From there he worked his way through most of the Mother Lode camps and diggings, and for the rest of his life remained a prospector, miner, and seeker after lost mines.

Either the La Paz rush of 1862 or the Weaver-Walker discoveries the next year must have stamped him to Southern California and on into Arizona, where he remained for years. In 1864 he was in Wickenburg milling the ore from the rich Vulture Mine, some dozen miles to the southwest, apparently first in an arrastra on the Hassayampa and later in the company's 40-stamp mill.

In 1870, he was back in San Bernardino, and prospecting. In June that year, according to the *Guardian*, he rediscovered the “long-lost Jesuit mine,” a legendary bonanza from which “the old padres in times past” had extracted fabulous amounts of silver. Prospecting for the source of rich silver float, in the mountains some 40 miles easterly from San Bernardino, Clusker had struck a well-defined trail, followed it to a well-graded road built of large stones, and followed that to the remains of an old shaft. Clearing the debris from that half-filled shaft the party found ore which, the newspaper said, assayed from \$600 to \$1,000 a ton.

Martinez village, below sea level on the Torres Martinez Indian Reservation in the Salton Sink, was a way station on the old Bradshaw Road, and the jumping-off place for Lost Ship hunters.

There were, of course, no Jesuits in the California missions. And if old padres of any brotherhood possessed a mine with such rich ore, it must not have been the one Charley found. There is no further mention of his connection with it, and when the Lost Ship appeared upon the horizon only months later, Charley was ready to go. And what more ideal leader could there have been to track down a phantom ship in the desert sands than a seasoned and experienced visionary like Charles C. Clusker?

Charley and two companions, men named Caldwell and Johnson, left San Bernardino on that quest about October 1, 1870. They followed the old Bradshaw Road through San Geronimo Pass and down the Coachella Valley to Martinez, still a Desert Cahuilla Indian center today, south of Indio and west of Mecca. Here, since the ship was supposed to be stranded "just southward of the point of the mountain southeast of Martinez," they left the only traveled road — that to Dos Palmas — and headed into the trackless Salton Sink.

At that time the present Salton Sea, created by a breakthrough of the Colorado River early in this century, did not exist. Instead, the sink was an enormous playa, hard and smooth in some areas, vast quagmires with a thin salt crust in



others. Here would be found great stretches of rough "self-rising" ground, there salt marshes or evanescent lakes, elsewhere boiling mudpots or shining salt beds.

With no roads or trails, Charley and his party headed directly across the playa toward their destination. But looking back, they suddenly decided that was not the way to do it. Behind them their footprints and the deep wagon tracks were already filled with water. Fighting the clutching clay, they hastily returned to a more *firma terra*.

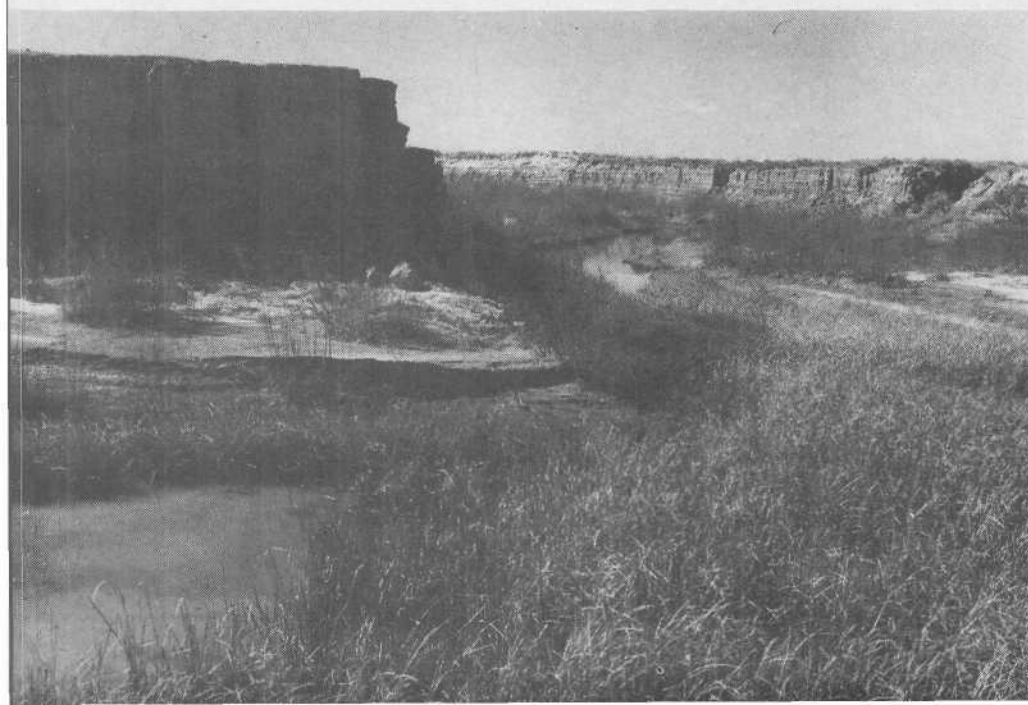
On their return to San Bernardino, the *Guardian* of October 15 reported: "All

the members of the expedition are highly pleased with the result. Though they found no ship nor any sign thereof, yet they seem fully persuaded of the existence of some vessel. That it will finally be found and the whole mystery solved admits of no doubt whatever. It is only a question of time, and a portion of the same party will start out in a few days to make another effort.

The *Guardian* speculated on whether the vessel would prove to be a buccaneer ship (in which case there would be rich booty aboard) or perhaps one sent out exploring by a Viceroy of Mexico (in which case pickings would probably be poor). "But after all," it concluded, "it may be that what we call a ship may be a corral, as it has borne the appearance of one to one of the only two white men who have ever seen it."

It might seem that a corral in the soggy midst of a great salt marsh which had once been a lake would be harder to explain than a wrecked ship in the same spot. But most interesting is that the *Guardian*, speaking apparently from unpublished information, says that only

Junction of Carrizo and San Felipe washes, a few miles southwest of present Salton Sea shore, probably was the laguna base camp Talbott described. There is cane here and almost always surface water. The Christmas camp that De Anza and his California expedition made in 1775 was in this area.



two white men had ever seen the ship. What has happened to that "party of Americans" in the News, a story the *Guardian* had published without question? And who were the fortunate two?

Charley calculated he had been within 10 or 15 miles of the ship on his first search, when he "made the wrong chute and got mired." So on his second expedition, starting November 5, he took along a good wagon and pack saddles, and planks to cross any miry ground. He also had new partners: D.S. Ferster, F.J. West, and a man named Hubble.

On November 26, the *Guardian* reported the return from that foray with caps, italics and exclamation points:

"RETURN OF THE SHIP PROSPECTORS!!! Charley Clusker and his party returned from the desert just as we were going to press. They had a hard time of it, but they have succeeded in their efforts. THE SHIP HAS BEEN FOUND! Charley returns to the desert today to reap the fruition of his efforts. He was without food or water, under a hot broiling sun for over 24 hours, and came near perishing. We have not space to report in full the adventures of the party, but are promised a full account in our next."

A news dispatch put on the wire from Los Angeles next day was briefer, but much more exciting: "Clusker reports he has found the desert ship 45 miles southwest of Dos Palmas station in the Cavesone (Cabezon) Lake. He described her at 200 feet long, bow, bowsprit and stern above the sand. Clusker returns today to the ship to take possession."

Two hundred feet! That's a lot of ship. It's long enough, in fact, to stretch the Lost Ship legend beyond the breaking point. But where did the figure come from? Not from the *Guardian*, so probably not from Charley. It may be the wire reporter talked to an expedition member who went directly on to Los Angeles, or that he picked up an embroidered rumor, or that he added the embroidery himself.

Most of the places where Charley Clusker searched for the Lost Ship are now deep beneath the Salton Sea, modern successor to the ancient sea upon which it may have floated. It is shown here while the Colorado River was flooding the sink and creating the sea, and when large sections of the Southern Pacific Railroad were being submerged or destroyed. Wreck of railroad track shown here.

Possibly the source was the same as that for a November 29 story in the Los Angeles News, which declared the wreck lay in the midst of boiling mud springs, where the animals sank to the knees in alkaline mud, which removed the hair from their legs. That story reported the ship seemed to be of some 200 tons burthen. Maybe tons were switched to feet.

Reporters were still embroidering Charley's story 50 years later. A San Diego newspaper in 1937 said: "According to Charley, he had found a great Spanish galleon, ornate crosses and even broken masts."

I have found no evidence Charley ever said he had found a Spanish galleon, or claimed his ship was 200 feet long. But then, neither have I found evidence that Charley ever found a ship, or even actually saw one.

The complete account of Charley's discovery was not, as promised, in the December 3 issue of the *Guardian*. "It is now a fixed fact," the paper said, "for there can be no doubt that the ship is there lying high and dry, 100 or 200 miles from water."

Then it went on with the details of the new expedition. This time, in addition to Ferster and West, Josh Talbott, one of the *Guardian* editors, was going along.

"They are well fitted out with all the necessary tools and implements for thoroughly exploring the vessel, such as shovels, picks, block, chains, rope, and 300 or 400 feet of boards. At Carrizo Creek station, on the San Diego road, they intend making a depot for supplies. We expect to receive some interesting news from the party, for publication, in a week or two."

But for almost a month, the *Guardian* made no mention of the ship or its seek-

ers. The break is so long that later writers about the Lost Ship commonly assert that no report on the expedition was ever made, and that the ship hunters sneaked back into San Bernardino, unwilling to talk.

Talbott's report — the most complete account of Charley's operations ever published — did finally appear in the *Guardian* on December 31. In it, Talbott first summarized the earlier searches, and explained what had caused the excitement on the one before. The party, he said, had gone again to Martinez, and then more to the south, crossing almost to the Fort Yuma road. Their animals having gone without water for 48 hours, they were compelled to turn back — but not before Charley "became convinced" they he saw the ship far out in the dry lake.

Of his own experiences Talbott wrote, in part: "We had water capacity for 108 gallons, provisions for two months and four good horses and wagon. We left San Bernardino on November 30th, and barring three severe nights rain, our trip was without incident. We came this time by a difficult route — that of the old Fort Yuma road via Warner's Ranch and Carrizo Creech station. On the route we discovered a rich tin mine, about 30 feet wide, which will deserve our attention hereafter. Here (Carrizo Creek), filling up our casks with water we boldly plunged out into the desert, intending to go as far as our water would permit and sending the wagon back for a fresh supply if we failed to find it. Passing out upon the desert about 18 miles we made camp and the next day commenced to prospect for the ship.

"Carrizo Creek becomes dry about a mile from the station, and is a hard, firm wash except in places for at least 40



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it. [Screened halftone
from contemporary
magazine article.]



miles, where it empties into the lake. The next day, Charley, Ferster and West went across a low ridge of sand hills to a mountain far out into the desert — the only one near the lake for miles — and returned without success. The ground near the lake is covered with shells and exhibits every evidence of being at one time an inland sea. The next day we took another course, going more in a northeasterly direction. On this trip we found a laguna covered with young cane. The water was brackish, but we thought good enough for horses, so sending the wagon for fresh water we continued our explorations, edging nearer each day to Dos Palmas, evidently some 70 or 80 miles distant.

"On the return of the wagon we started for the laguna, and as we went further into the desert roads became terrible — the ground filled with rabbit holes and the soil loose and porous, the walkers plunging over shoe tops at every step. A little after dark we arrived at the laguna, the horses completely fagged out. Next day we resumed our explorations. We were not yet within 30 or 40 miles of where the ship is said to be, but Charley was determined to thoroughly prospect the lake as he went. The boys were out two or three days more, surmounting obstacles that would deter most men, but the weather being clear and cold they wandered over a vast expanse of ground — on foot, as we had to spare our animals as much as possible."

After 20 days, Josh decided business required his return to San Bernardino. With Ferster he rode northerly a distance he estimated at about 60 miles, to Martinez station. Ferster returned to the

prospectors with the horses. Talbott came home to San Bernardino in one of station keeper Gus Knight's wagons. He had left the boys in good spirits, he said, confident they would yet find their ship. But as for himself:

"We have not lost any ships, we do not feel inclined to undertake another expedition to find one."

Clusker had told Talbott that he would prospect another month, but he was back in San Bernardino two weeks later. As usual, he headed for the *Guardian* office. The January 14, 1871, issue updated the Lost Ship saga:

"RETURN OF THE SHIP PROSPECTORS. On Tuesday evening last, Charley Clusker and party returned to town, we are sorry to say, unsuccessful. Their animals were completely worn out — scarcely able to bring the wagon home. The indomitable Charley is not discouraged, and will make another effort to find the ship, this time via Dos Palmas."

In from Dos Palmas was about the only direction that Charley, the indomitable and indefatigable, had not tried. It also was the logical route to have been tried in the first place, considering the supposed position of the ship. But if Charles did make the effort, I have been unable to find any record of it.

If Charley Clusker did abandon his quest for the Lost Ship, I suspect the reason was not any weakening of his enthusiasm, but a shortage of proper expedition members. Members, that is, who would foot the bill for food, tools, supplies and animals necessary. Through some experience with the old prospector breed, I even have a suspicion as to why each of Charley's expedi-



tions took a different direction and covered different country. Why, particularly after he claimed to have sighted the ship on one try, his next search took an enormous detour to approach the area from much farther off and an almost opposite compass direction.

Talbott's account makes it clear that Charley was not simply hunting a stranded ship, which in that dry lake sink could have been seen from afar. He was prospecting the country. To put it bluntly, it appears that Charley Clusker found the story of the Lost Ship the most superb bait for catching grubstakers that he had ever encountered. He would probably have kept looking for it as long as he could raise a grubstake for the purpose.

That is not to doubt that Charley believed in the Lost Ship and really hunted for it. He just didn't hunt it exclusively. He wanted to make certain that he didn't miss anything good enroute. And the fact that he did not find the ship on the arduous expeditions, or any ledge, vein or placer either, in no way shook his prospector's optimism.

The next year he was up in Death Valley, hunting the Lost Gunsight mine with companions Frink and Curtis. He didn't find that either, and the reason, explained in the March 9, 1872, *Guardian*, was that they had started too early. Caught in the mountains in a snow storm, they had been forced to retreat. But come spring, they were going back again.

Early in 1873 there was an excitement in the Ord Mountains, and Charley was leading a party of prospectors there. Later the same year he had something

big "beyond the mountains" in the Twentynine Palms region. In 1879 he was amalgamator in the mill at Resting Springs, "one of the best skilled mining men on the Slope." In 1880, the *San Bernardino Daily Times*, identifying him as "the veteran prospector of the county," reported that Charley was in town "with new visions of wealth floating before his eyes."

Charley finally did give up prospecting. At age 81, in 1891, he opened and successfully operated a store in San Timoteo Canyon, which is just northwest of San Geronio Pass, beside the old road he had followed so often into the desert. In 1904, age 94, he was living in San Bernardino, "with health and mental faculties unimpaired."

The biographer who recorded these facts for Ingersoll's *Century Annals of*

San Bernardino County, did not even mention his most famous adventure — the quest for the Lost Ship.

But he did sum Charley up rather well: "For 30 years Mr. Clusker was a typical prospector and miner. He made fortunes — and lost them with equal fortitude. Sometimes he had wealth in hand, always he possessed wealth in prospect. □

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Liar's Contest on April 2

THE THIRD annual revival of the Pegleg Liars Contest will be held at the Pegleg Monument near Borrego Springs, in California's Eastern San Diego County, on Saturday night, April 2, 1977.

General chairman this year is Borrego high school teacher, Dan Boonstra, assisted by Maurice (Bud) Getty, manager of Anza-Borrego Desert State Park, and Bill Jennings, desert writer and administrative aide for the University of California's Philip L. Boyd Deep Canyon Desert Research Center near Palm Desert.

No rules for the contest have been announced but the general restriction established 30 years ago will still apply—all entries must stick somewhat to the legend of the lost Pegleg gold lode—and from there imagination is the key.

Last year's winners, Walter E. Frisbie, Ben Stirdivant and Anne B. Jennings, all Hemet, California residents, are expected to compete again.

There is no entry fee for the contest other than the traditional placement of 10 rocks on the monument, which is located at the intersection of Borrego's Salton Seaway and Henderson Canyon

Road six miles northeast of Christmas Circle, the Borrego Springs business district.

A 10-minute time limit is contemplated for all entries because of the need to complete the contest in one evening. Prizes have not yet been announced by the committee but they are expected to remain in the informal style set the last two years. Gilded carrots were the prizes the first year and beer cans mounted on driftwood were awarded last year. Boonstra promises something equally unusual with perhaps a little more permanency.

Contestants and spectators may camp in the immediate area of the monument, which is outside the park boundaries, or stay at any of several park primitive camps in the vicinity. More formal camping facilities for trailers are available at park headquarters in Borrego Palm Canyon, but reservations are required.

The contest is a revival of the original tall tale reunion established as a New Year's Eve campfire by the late Harry Oliver and other devotees of the Pegleg legend and gradually became a liars contest. The Pegleg myth concerns a long-lost lode of black gold nuggets originally found by a pre-Civil War mountain man, Thomas L. Smith, who found three small hills somewhere in the Borrego-Colorado Desert fastness while looking for his strayed mule, or so goes one version of the popular legend. On one hill he picked up a number of small, very heavy black stones. Later, on reaching civilization, presumably San Francisco, he scratched the surface of the stones and found they were "pure" gold with a black varnish coating.

Smith spent the rest of his long life either searching for the hills or retelling the story in saloons, prompting many others to search for the lode. An unidentified man sent some black gold nuggets to *Desert Magazine* several years ago and indicated he found the long-lost treasure. His samples were the real thing and this story has been accepted as authentic, but the search still goes on, at least on the Saturday night closest to April Fools Day, which is the official date of the liars contest revival.

No advance entries are required. Contestants may use any props or costuming in their monologues but are reminded to weave the Smith legend into their narratives at least fleetingly to avoid disqualification. □

COACHELLA VALLEY CAMPING

Continued from Page 31

Water District's huge aqueduct during construction in the 1930s, offers the best approach to several canyons, both in the Indio Hills and the little San Bernardino. Dillon connects Indio and Desert Hot Springs and is crossed by several big washes. Some will handle conventional vehicles but hidden rocks lurk to gouge your pan and other vital underparts on lowslung cars.

None of the upper canyons, on the right as you head up Dillon toward Desert Hot Springs, are open very far because of the boundary of the Joshua Tree monument, now closed to all off-road use. Fargo, Berdoo, Pushawalla, Deception, East and West side canyons all are good for short and very rugged trips, with rewarding hiking areas at their monument boundaries.

These canyons are in the transition zone between the Low or Colorado Desert and the High or Mojave and thus provide some very interesting bridges in plant and animal life as well as incomparable views back toward the Coachella Valley.

One of the writer's favorite camping and resting spots in the upper Coachella Valley is Willow Hole, just off Varner Road (old 60-70-99) and Mountain View Road, three miles south of Desert Hot Springs. A perpetual spring keeps tule, willow, mesquite and catclaw and other cienega plants verdant in warm weather and provides good cover for a teeming wildlife population in winter. Unfortunately, the marsh is hard to reach by car — or maybe that's fortunate because the area can't stand too much penetration by humans.

At one time, the area was proposed as a county dumpsite, believe it or not, and only the cooperation of individuals, the Desert Hot Springs park agency and the U.S. Bureau of Land Management prevented its destruction.

You can camp nearby, taking care to find a protected cover because this is the windiest part of the valley.

Many old-time desert campers will breathe a sigh because this story hasn't blown their secret hideaways, and some of those listed may not be usable for all comers, due to vehicle limitations and the continuing evolution of the once-wild Coachella Valley outback. Good luck! □

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Recipes for M'Lady

by HELEN PETERSON

CRANBERRY-DATE JAM

- 4 cups cranberries (chopped)
- 1 cup dates (chopped)
- 3 cups sugar
- 1 cup water
- ¼ teaspoon cinnamon
- Pinch of salt
- Pinch of nutmeg

Boil all ingredients together for 5 minutes. Pour into sterilized jars and seal. Makes 5 half pints.

ORANGE-DATE JELLIED SALAD

- 1 pint creamed cottage cheese
- 1 cup mayonnaise
- 1 quart frozen topping (cool whip)
- 2 packages (3 oz.) orange jello
- 1 can (13 oz.) pineapple tidbits
- 1 can (11 oz.) Mandarin oranges
- 1 cup dates (chopped fine)
- 2 tablespoons lemon juice

Thaw topping. Drain fruit. Mix together cottage cheese, mayonnaise and topping. Sprinkle DRY jello over, add

drained fruits and dates, lemon juice and stir all together. Chill in refrigerator 3 to 4 hours—or longer. (Can be frozen and served at a later date.)

CRANBERRY-DATE NUT BREAD

- 2 cups cranberries (chopped fine)
- 1 cup dates (chopped)
- 2 eggs (beaten)
- ¼ cup shortening
- ¾ cup warm water
- 1 cup sugar
- 2 cups flour (regular)
- 1½ teaspoons baking powder
- ½ teaspoon soda
- 1 teaspoon salt
- ½ cup nuts (chopped)

Soak chopped cranberries and dates in warm water. Sift dry ingredients into mixing bowl. Cut in shortening. Add the beaten eggs and soaked fruit and mix just enough to dampen. Fold in nuts. Pour into greased loaf pan (9x5x3). Spread corners higher than center. Bake 1 hour at 350 degrees.

DATE-NUT CAKE SQUARES (3 steps—quick and easy)

- #1 Pour 1 cup boiling water over 1 cup cut up dates and 2 teaspoons soda. Let stand until cool.
- #2 Mix 1 cup sugar, 1 cup salad dressing and 1 teaspoon vanilla together.
- #3 Sift 2 cups flour, and ½ teaspoon salt together.

Combine all 3 mixtures and add 1 cup chopped nuts. Bake 40 minutes at 350 degrees. While still warm, cut into squares and roll in powdered sugar.

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Rambling on Rocks

by
**GLENN and
MARTHA VARGAS**

THE ROCK FLOW: Coachella Valley's Mysterious Rock Pile

CALIFORNIA'S Coachella Valley is not an important area for minerals and gem materials. In our experience, it contains nothing of real interest to the mineral collector. However, the valley is well supplied with rocks of a number of types, especially in the surrounding hills.

The San Andreas Fault System runs on the eastern side, and movements in the past have stirred the formations there. In some places, a formation of one type and color lies in contact with that of another type and color. One was slid into contact with the other by the fault crack that lies between.

On the west side of the valley, various metamorphic formations lie at the edge of the valley floor. As one moves upward through the hills (on State Highway 74 for instance) these metamorphic rocks

are seen folded and contorted into interesting formations. At about the 3,000 foot level, the metamorphic rocks give way to granitic types that make up the bulk of the Santa Rosa and San Jacinto Mountains. These granitic rocks are greatly responsible for the metamorphism of the rocks below the 3,000 foot level.

To the south of Highway 74 lies a rock formation that does not follow the usual pattern of the formations on the western side of the valley. Near the western end of Avenue 62 is an enormous pile of huge granitic boulders. Many of them have been estimated to weigh 100 tons or more.

The out-of-place character of this formation attracted our attention many years ago. We found the face to be a steep jumble of rocks that more or less parallel the edge of the valley. This steep face abruptly levels off at a point exactly coinciding with what has been established as the level of Ancient Lake Cahuilla, which once filled the valley. This level is about 30 feet above sea level. This edge of the formation, as may be seen in the photograph, is cut off sharply, indicating it was pushed into the water of the lake.

Our next step in the investigation was to fly over the formation, which we had begun to suspect of being a rock flow, and called it such. Our first flight revealed that it almost certainly was a rock flow. Its surface strongly resembled the surface of a glacier.

Our next thought was to try to reconstruct what had happened. Such a large amount of rock could not have possibly been moved by a series of storms, for there is no other part of the area that shows granitic rocks down to the valley floor. The massiveness of the flow simply ruled out any normal weather conditions that might account for the phenomenon.

We live fairly close to the flow, and can easily see the mountain above it. This area appears to be something like an amphitheater cove. Our next thought was that this mass might have originally occupied this "amphitheater." This called for another airplane ride.

Sure enough, the face of the mountain had a scooped-out look. Subsequent erosion has cut it somewhat, but the overall contours were undisturbed. As can be seen from the illustration, this flight was in winter. Photography at that elevation



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(about 8,000 feet) in a small plane is not the most comfortable, even though we had left an airport in nice warm sunshine.

At this point, our imaginations ran wild. Could an earthquake have dislodged such a huge amount of rock? In checking out this thought, we soon decided against it. The curves in the surface of the flow definitely indicate a more plastic situation. Water carrying the rock was the best idea.

Could the amphitheater-like cove in the mountain be the remains of the western shore of a lake that collapsed? Perhaps the flow was the eastern shore of the lake. This became the thought that seemed most logical. A study of the pictures, and another flight over the mountain did not reveal anything that looked like a lake shore.

We interested some of our geologist friends in our problem. One was an expert on ancient lakes and shore lines. Most of them gave our thoughts some credence, but would not agree with us entirely. The most common suggestion was to make a trip up to the cove in the mountain. This we have not done, as it is evidently far from a road. Getting there would be a large project.

Regardless of the lack of definite evidence, we firmly believe that the mass of rock flowed down, with water, out of the cove high in the mountain. Most agree that this may have been the method of its formation. We also feel strongly this had to form at one time, not over a long period. Here again we are agreed with. This then leads us to feel sure that a collapsed mountain lake did the job.

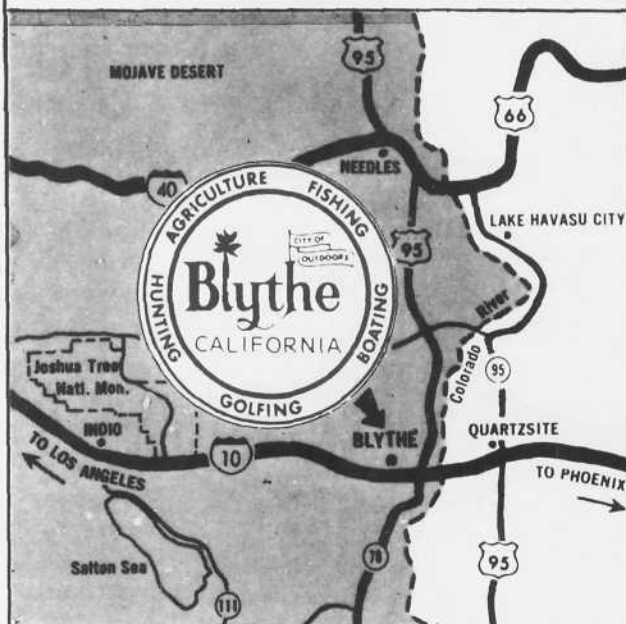
It is almost certain that we will never make the trip to the mountain to see for ourselves. Occasionally, on a clear day, we look over to the rock flow and try to add another bit to the evidence. Perhaps it is much more fun to ponder a problem, than it is to know the answer! ☐



Looking southeastward from about 3000 feet. Lower Coachella Valley in background

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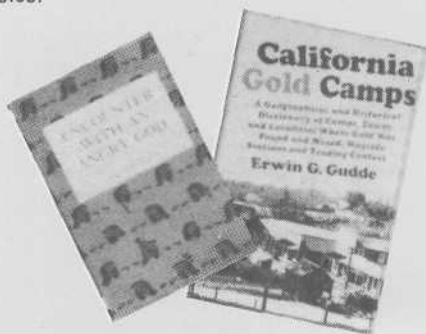
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HISTORICAL ATLAS OF NEW MEXICO by Warren A. Beck and Ynez D. Haase. Geographical data, sites of prehistoric civilizations, events of history, first towns, stagecoach lines, historic trails, etc., are included in this comprehensive atlas. Excellent maps, index. Hardcover, highly recommended, \$5.95.

HISTORICAL ATLAS OF CALIFORNIA by Warren A. Beck and Ynez D. Haase. Extensive documentation and pertinent detail make this atlas a valuable aid to the student, scholar and everyone interested in the Golden State. 101 excellent maps present information on the major faults, early Spanish explorations, Mexican land grants, routes to gold fields, the Butterfield and Pony Express routes, CCC camps, World War II Installations, etc. Hardcover, extensive index, highly recommended, \$9.95.

THE CREATIVE OJO BOOK by Diane Thomas. Instructions for making the colorful yarn talismans originally made by Pueblo and Mexican Indians. Included are directions for wall-hung ojos, necklaces, mobiles and gift-wrap tie-ons. Well illustrated with 4-color photographs, 52 pages, paperback, \$2.95.

GHOST TOWNS AND MINING CAMPS OF CALIFORNIA by Remi Nadeau. Once again available, this excellent book preserves the myths along with the history of the ghost towns of California. Paperback, 278 pages, well illustrated, \$4.95.

FORKED TONGUES AND BROKEN TREATIES Edited by Donald E. Worcester. This book gives us a better understanding of the unequal struggle of native against immigrant while our nation was being explored and settled. Profusely illustrated with excellent photos, a "must" reference for historians, students, librarians. Hardcover, 494 pages, \$9.95.

LOST MINES OF THE GREAT SOUTHWEST by John D. Mitchell. The first of Mitchell's lost mine books is now available after having been out-of-print for years. Reproduced from the original copy and containing 54 articles based on accounts from people Mitchell interviewed. He spent his entire adult life investigating reports and legends of lost mines and treasures of the Southwest. Hardcover, illustrated, 175 pages, \$7.50.

ANZA CONQUERS THE DESERT, Commissioned by James S. Copley, Written by Richard F. Pourade. The story of the conquest of the Great Desert by Juan Bautista de Anza. The colonization of California in the 1770s received its greatest impetus with the opening of the overland route from northern Mexico. Hardcover, beautifully illustrated, 216 pages, large format, \$12.50.

OUR HISTORIC DESERT, The Story of the Anza-Borrego State Park. Text by Diana Lindsay, Edited by Richard Pourade. The largest state park in the United States, this book presents a concise and cogent history of the things which have made this desert unique. The author details the geologic beginning and traces the history from Juan Bautista de Anza and early-day settlers, through to the existence today of the huge park. Hardcover, 144 pages, beautifully illustrated, \$10.50.



THE CHEMEHUEVIS by Carobeth Laird. A superb ethnography destined to become a classic in anthropology, by the author of *Encounter With An Angry God*. Based on information provided by the author's husband, George, a Chemehuevi tribesman, the work is a delight to both scholars and general readers. With glossary, maps, index, place-name index and appendices on language and cartography. Beautifully decorated. Paperback, 349 pages, \$8.95 paperback, \$15.00 hardcover.

TOP BOTTLES U.S.A. by Art and Jewel Umberger. The discovery of a rare old bottle opens up a new understanding of life at an earlier period. A collection of old medicine bottles takes one back to a slower, less complicated life-style. A time when a concoction of aromatic bitters could cure almost anything. The authors have an expertise in their field that cannot be challenged. Illustrated, paperback, \$4.50.

JEEP TRAILS TO COLORADO GHOST TOWNS by Robert L. Brown. An illustrated, detailed, informal history of life in the mining camps deep in the almost inaccessible mountain fastness of the Colorado Rockies. 58 towns are included as examples of the vigorous struggle for existence in the mining camps of the West. 239 pages, illustrated, end sheet map, hardcover, \$7.95.

THE ROCKS BEGIN TO SPEAK by LeVan Martineau. The authors tell how his interest in rock writing led to years of study and how he has learned that many—especially the complex petroglyphs—are historical accounts of actual events. Hardcover, well illustrated, glossary, bibliography, 210 pages, \$8.95.

THE WEST

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SUCCESSFUL COIN HUNTING by Charles L. Garrett. An informative study of coin hunting, this is a complete guide on where to search, metal detector selection and use, digging tools and accessories, how to dig and the care and handling of coins. A classic book in the field. 181 pages, paperback, \$5.00.

TALES OF THE SUPERSTITIONS, The Origins of The Lost Dutchman Legend by Robert Blair. An intriguing and well documented account of the fabulous Lost Dutchman, the author turns up new clues and signatures which will prove to be both a setback and a stimulus to the search for the legendary mine. Paperback, 175 pages, \$4.95.

TO HELL ON WHEELS by Alan H. Siebert. A must for every desert traveler, this is not just another survival book, it is a manual of mobility for the recreational vehicle drive who is looking for something more than the organized campground. Highly recommended for both the newcomer and old-timers. Paperback, 64 pages, well illustrated, \$2.95.

THE LIFE OF THE DESERT by Ann and Myron Sutton. This fascinating volume explains all the vital inter-relationships that exist between the living things and the physical environment of our vast desert regions. More than 100 illustrations in full color. Helpful appendices contain comprehensive index and glossary. Special features on endangered species, lizards and poisonous animals. Hardcover, 232 pages, profusely illustrated, \$5.50.



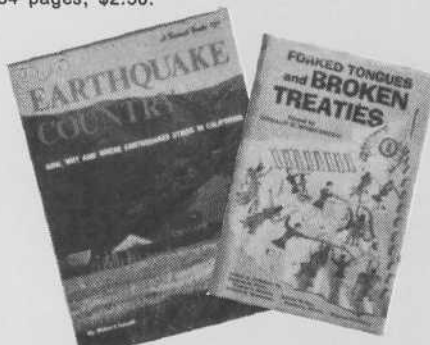
GOLDEN CHIA by Harrison Doyle. The only reference book on the chia plant and seed. This book illustrates the great difference between the high desert chia, and the Mexican variety sold in the health food stores. If you study, practice and take to heart, especially the last ten pages of this nutritionally up-to-date, newly revised book, you will find many answers you've been searching for to the achievement of health and well being, lengthen your life expectancy measureably, and be 99% less susceptible to disease of any sort. Fourth printing, 105 pages, illustrated. Paperback \$4.75, cloth, \$7.75.

STAGECOACH WEST by Ralph Moody. The lively story of stagecoaching in the West, which provided the lines of rapid communication, hauled the wealth of a new nation, and helped Americans settle the region between the Missouri and the Pacific. Well illustrated, including many detailed maps. Hardcover, 341 pages, originally published at \$8.95, now only \$3.98.

A HISTORY OF THE COMSTOCK SILVER LODE AND MINES, Nevada and the Great Basin Region, Lake Tahoe and the High Sierras, by Don De Quille [William Wright]. Gives an excellent description of Nevada mining, particularly in the period of its greatest productivity. Also includes history of the region, its geography and development. Hardcover, one of the "America's Pioneer Heritage" Series, 158 pages, originally published at \$6.95, now priced at \$2.95.

ENCOUNTER WITH AN ANGRY GOD by Carolebeth Laird. A fascinating true story of the author's marriages to anthropologist John Peabody Harrington, the "angry god," and to the remarkable Chemehuevi Indian, George Laird. The appeal of this amazing memoir is so broad it has drawn rave reviews throughout the country and is being hailed as a classic. Hardcover, 230 pages, \$8.95.

HOW TO DO PERMANENT SANDPAINTING by David and Jean Villaseñor. Instructions for the permanent adaptation of this age old ephemeral art of the Indians of the Greater Southwest is given including where to find the materials, preparation, how to color sand artificially, making and transferring patterns, etc. Also gives descriptions and meanings of the various Indian signs used. Well illustrated, paperback, 34 pages, \$2.50.



TREASURE HUNTER'S MANUAL #7 by Karl von Mueller. Treasure, or treasure trove, may consist of anything having a cash or convertible value; money in all forms, bullion, jewelry, guns, gems, heirlooms, genuine antiques, rare letters and documents, rare books and much, much more. This complete manual covers every facet of treasure hunting. Paperback, 293 pages, illustrated, \$6.50.

UTAH GEM TRAILS by Bessie W. Simpson. Newly revised edition for the casual rockhound or collector interested in collecting petrified wood, fossils, agate and crystals. The book does not give permission to collect in areas written about, but simply describes and maps the areas. Paperback, illustrated, maps, \$3.50.

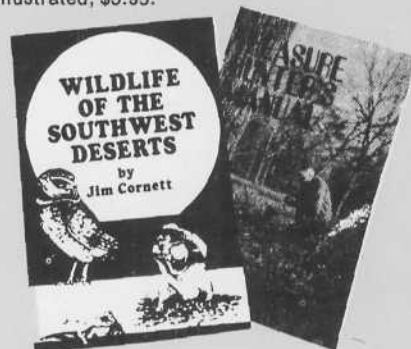
WILDLIFE OF THE SOUTHWEST DESERTS by Jim Cornett. Written for the layman and serious students alike, this is an excellent book on all of the common animals of the Southwest deserts. A must for desert explorers, it presents a brief life history of everything from ants to burros. Paperback, 80 pages, illustrated, \$2.99.

BROKEN STONES, The Case For Early Man in California by Herbert L. Minshall. "The Broken Stones" peels back some of the story of man in America, back beyond the longest racial memory. Author Minshall pulls together all that has been learned or suggested by amateurs as well as experts, including his own discoveries. To them the broken stones are beginning to speak—and they speak of the presence of man on the American Continent many thousands of years before he shaped the first bow and arrow. Large format, beautifully illustrated, hardcover, \$16.50.

GHOST TOWN ALBUM by Lambert Florin. Over 200 photos. Fascinating pictorial accounts of the gold mining towns of the Old West—and the men who worked them. Large format, 184 pages, profusely illustrated, hardcover, originally published at \$12.50, new edition \$4.95.

200 TRAILS TO GOLD, A Guide to Promising Old Mines and Hidden Lodes Throughout the West by Samuel B. Jackson. Rated by the pros as "one of the best," this comprehensive guidebook is jam-packed with detailed descriptions of hundreds of gold-prospecting opportunities, histories of past bonanzas, and stories of still-to-be-located lost mines. It covers every gold-bearing section of the United States. Hardcover, 348 pages, illustrated, \$8.95.

THE OWENS VALLEY AND THE LOS ANGELES WATER CONTROVERSY—OWENS VALLEY AS I KNEW IT by Richard Coke Wood. The author was eye witness to California's Little Civil War, the struggle that occurred between the pioneer farmers of Owens Valley and the great growing metropolis of Los Angeles in the 1920s. The struggle between representatives of Los Angeles and the farmers, the checkerboard buying of ranches, reparations, the years of arbitration and compromise, the opening of the Alabama spillway by the farmers, the men, the action, the historical story are all recorded here. Paperback, illustrated, \$3.95.



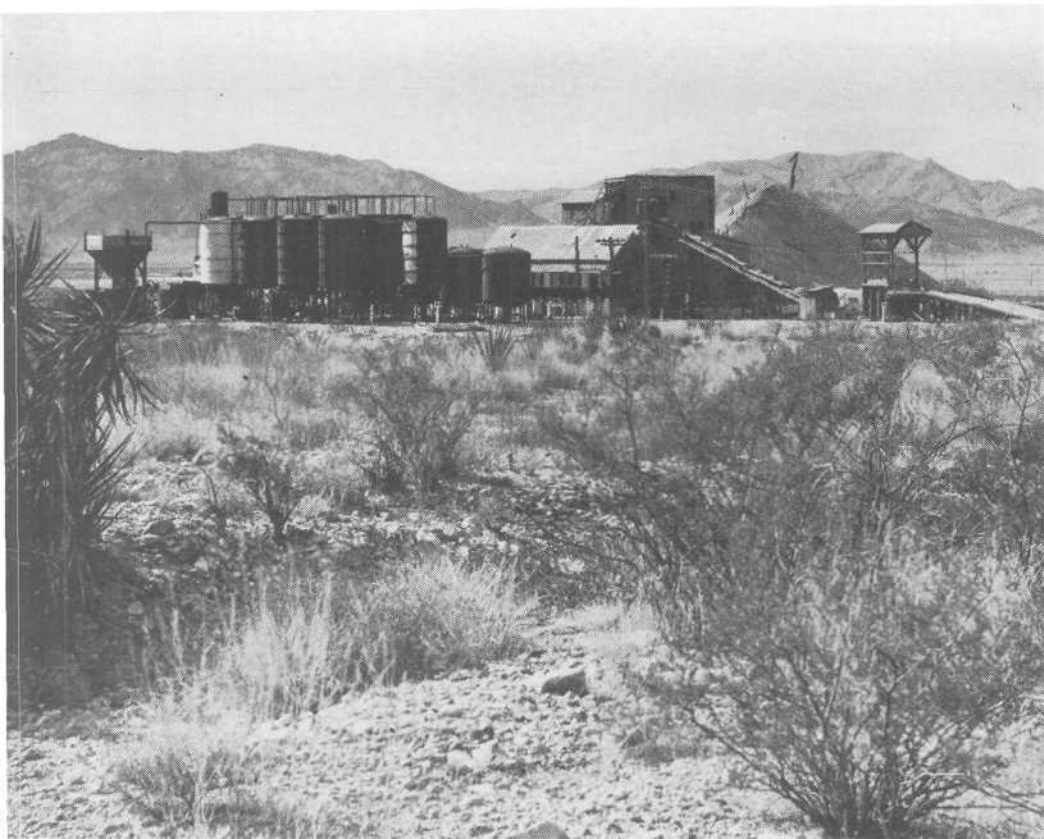
ON DESERT TRAILS by Randall Henderson, founder and publisher of Desert Magazine for 23 years. One of the first good writers to reveal the beauty of the mysterious desert areas. Henderson's experiences, combined with his comments on the desert of yesterday and today, make this a MUST for those who really want to understand the desert. ORDER NOW, LIMITED QUANTITY AVAILABLE! Hardcover, 375 pages, \$7.50.

AMERICAN INDIAN FOOD AND LORE by Carolyn Nelthammer. The original Indian plants used for foods, medicinal purposes, shelter, clothing, etc., are described in detail in this fascinating book. Common and scientific names, plus descriptions of each plant and unusual recipes. Large format, profusely illus., 191 pages, \$4.95.

GEM TRAILS OF ARIZONA by Bessie W. Simpson. This field guide is prepared for the hobbyist and almost every location is accessible by car or pickup accompanied by maps to show sandy roads, steep rocky hills, etc., as cautions. Laws regarding collecting on Federal and Indian land outlined. Paperback, 88 pages, illus., \$3.50.

COLORFUL DESERT WILDFLOWERS by Grace and Onas Ward. Segregated into categories of red, blue, white and yellow for easier identification, there are 190 four-color photos of flowers found in the Mojave, Colorado and Western Arizona deserts, all of which also have common and scientific names plus descriptions. Heavy, slick paperback, \$4.50; hardcover, \$7.50.

THE SALTON SEA, Yesterday and Today, by Mildred deStanley. Includes geological history, photographs and maps, early exploration and development of the area up to the present. Paperback, 125 pages, \$1.75.



The Shenandoah Mill stands on a flat east of Sandy. It was built in 1935 to process ores from the Shenandoah Mine—two miles north in the Spring Mountains.

GOODIES AT GOODSPRINGS

Continued from Page 11

close foot trails, scaffolding trails, as well as the narrow tracks of mule-powered tramways.

Approaching Sandy, the Shenandoah Mill stands out sharply on the skyline. A "Johnnie-come-lately," it was erected in 1935 to treat ores from the Keystone and Barefoot Mines. "Sandy" is descriptive of this area. Beware of soft shoulders unless you have four-wheel-drive.

Sandy came into existence in 1893 when the Keystone Mining Company elected to build its mill at Taylor's Well. It was a small settlement which included considerable tent housing and wooden structures, the mill and mine company offices, store, post office (1896-1910), school, hotel and several saloons. Today, the millsite is used as a general repair shop. A few old buildings along with the wooden reservoir — once serving the mill — are all that remain.

This region is a broad, trough-like basin with two monickers — Sandy Valley or Mesquite Valley. Bordered by mountains and containing a dry lake at the lowest point, it seems to have been an ideal location for high-powered land promotion schemes. Townsites were

platted and then advertised in eastern newspapers as "very healthy climate — fine agricultural land — rich mining resources." Towns such as Lincoln City, Boss, Ripley, Mandolina and Platino are but memories. In fact, most of them existed in name only.

Many times in the past 80 years, homesteaders have come to Sandy Valley and tried their luck at farming. Alfalfa seems to have been the only successful crop. Even today, a few hardy souls are attempting "to grow their own." The early settlers' cabins have been replaced by mobile homes which seem out of place among the sand and sagebrush. One long-time resident told us, "They arrive all eager but in a year or two, will move on." He also informed us the Shenandoah Mill was preparing to run zinc ore.

From Sandy, a good, graded road heads northeasterly; skirts a mountainous bulwark containing the Keystone and several other well-known mines before starting the climb to Wilson Pass. Watch ahead for a sizable, limestone mountain. Note the irregular stratification indicating folding, faulting and displacement of the large block of limestone. Once over the 5,000-foot summit, the road quickly descends, passes turn-offs to the Pilgrim and Yellow Pine

Mines before reaching Goodsprings.

For those who love high desert country and enjoy treading historical paths — the Goodsprings Region will be fascinating. For those intent on more serious business than nostalgia — some fine mineral specimens may await you. Good luck! □

The following is a list of mines where excellent specimens have been found. Reference for their location on topographical maps is also included.

Blue Jay Mine

Sec. 9, T. 24 S., R. 58 E

Malachite in fine groups pseudomorphous after azurite crystals; diopside in druses of small crystals; heterogenite in botryoidal and stalactitic groups; cobaltiferous pink dolomite.

Yellow Pine Mine

Sec. 20, T. 24 S., R. 58 E

Azurite and malachite in beautiful blue and green masses; large anglesite crystals; large masses of bright-green (rare occurrence). Other minerals include galena, smithsonite, hydrozincite, hemimorphite, cerussite, vanadinite, calamine, chrysocolla and cinnabar.

Pilgrim Mine

Sec. 8, T. 24 S., R. 58 E

Excellent specimens of wulfenite, galena and hydrozincite. Also cerussite, calamine and pyromorphite.

Prairie Flower Mine

Sec. 17, T. 24 S., R. 58 E

Fine, large crystals of anglesite; greenish-yellow mimetite, aragonite, calamine and descloizite.

Monte Cristo Mine

Sec. 14, T. 25 S., R. 58 E

Excellent calcite crystals, smithsonite, calamine, hydrozincite and galena.

Lavina Mine

Sec. 21, T. 24 S., R. 58 E

Olivine (rare occurrence), pyrite and proustite.

Argentina Mine

Sec. 34, T. 24 S., R. 58 E

Good specimens of hydrozincite, white barite, galena, sphalerite and yellow descloizite.

Columbia Mine

Sec. 33, T. 24 S., R. 58 E

Fine specimens of chrysocolla, diopside, plumose malachite and tenorite.

Bill Nye Mine

Sec. 31, T. 24 S., R. 58 E

Cuprodescloizite in fine mammillary crusts, calamine, hydrozincite and smithsonite.

Whale Mine

Sec. 6, T. 25 S., R. 58 E

Main dump—chrysocolla, hydrozincite, aurichalcite and calamine.

Small workings on east, not main mine—excellent specimens of cuprodescloizite as olive-green coatings on vugs and in open veins. Also aurichalcite, galena and hemimorphite.

Mobil Mine

Sec. 36, T. 24 S., R. 58 E

Good wulfenite crystals coated with calamine.

Boss Mine

Sec. 34, T. 24 S., R. 57 E

"Vegasite" was the name given a platiniferous, greenish-yellow mineral thought to be a new mineral. However, Dana states, "Vegasite from the Yellow Pine District (Goodsprings), was shown to be identical with plumbjarosite. The latter is usually a dark brown color.

Letters to the Editor

Letters requesting answers must include stamped self-addressed envelope

Needs Info on Carob . . .

The article entitled "Carob—The Multi-Purpose Tree," in the December 1976 issue, is of much interest to me respective to the food value information given therein, by Marion Seddon.

I am particularly interested in knowing where Carob molasses may be obtained, as I do not find it listed in any health food stores in this area.

Any information you can give on this subject will be highly appreciated.

HOWARD BIDWELL,
Granby, Mass.

Editor's Note: We found that our local health food store, [White's Health Center, 72831 Highway 111, Palm Desert, Calif. 92260] not only carries Carob in all forms, including molasses, but will also ship orders received by mail.

Silver Lake Country Correction . . .

Reference is made to the article entitled "Silver Lake Country" by Mary Frances Strong, appearing in your January 1977 issue.

In the sixth paragraph Ms. Strong states, "Seven miles south at Baker Station, the Salt Lake Railroad Line had been completed across the desert and on into Utah." The Salt Lake Line never served Baker at all, and crossed the Tonopah & Tidewater RR at Cru-cero, Calif., some miles south of Baker. (To be exact, 16.14 miles.)

On page 34, she further states, "The ore was hauled to Riggs Siding for shipment until the Tonopah & Tidewater Railroad ceased operations in June 1970." The T&T RR was nothing but a memory by 1970. Its operations were ceased on June 14, 1940. Perhaps this was a misprint?

I have been a subscriber of yours for some years and enjoy the magazine, especially the historical articles.

E. S. PEYTON,
Las Vegas, Nevada.

These are final typing errors—my apologies!
Mary Frances Strong.

Calendar of Events

This column is a public service and there is no charge for listing your event or meeting—so take advantage of the space by sending in your announcement. We must receive the information at least three months prior to the event.

MARCH 4-13, Imperial Valley Gem and Mineral Society presents their 30th Annual Show as part of the California Midwinter Fair at Imperial, California. Field Trip on March 11. Dealers: Area for trailers and campers (no hookups). Admission to Fairgrounds.

MARCH 19 & 20, Sequoia Mineral Society's 39th Annual "Gem Roundup," Dinuba Memorial Building, Dinuba, Calif. Guest exhibits, dealer space filled. Sam Carlson, 2101 Merced St., Selma, Calif. 93662.

MARCH 19-20, The Sacramento Valley Rock Rustlers 19th Annual Show, Building "C" on the California State Fair and Exposition Grounds, 1600 Exposition Blvd., Sacramento, Calif. Dealers, open competition using CFMS, AFMS rules and judges. Chairman: Lillian Ebner, 1445 Cladstone Dr., Sacramento, Calif. 95825.

MARCH 26 & 27, Roseville Rock Rollers Gem & Mineral Society's 5th Annual Show, Placer County Fair Grounds, Roseville, Calif. Demonstrations, dealers. Chairman: Gordon Henry, 6828 Bismarck, North Highlands, California 95660.

APRIL 1-4, Annual Shoshone Desert Art Show, Shoshone, Calif. No admission. Show includes oil paintings, acrylics, crafts, photography and other categories on desert life.

APRIL 2-10, First Lilac Festival and Spring Celebration sponsored by entire community of Lone Pine, Calif. Located in Owens Valley at the foot of Mt. Whitney. Easter Bonnet Contest, Egg Hunt, Easter Parade, Horse Show, Arts and Crafts Fair, Lilac Displays. Contact Lone Pine Chamber of Commerce, Box 552, Lone Pine, Calif. 93545.

APRIL 3-10, Annual Phoenix 4-Wheelers "Roundup." Contact: Dick Houser, Ramrod, 3310 E. Shangri La Rd., Phoenix, Az. 85028.

APRIL 9 & 10, Paradise of Gems, sponsored by the Paradise Gem and Mineral Club, Veteran's Memorial Hall, Elliott and Skyway, Paradise, Calif. Free camping for Dealers and Guest Exhibitors. Dealer space taken. Admission 50 cents.

APRIL 16 & 17, Santa Barbara Mineral and Gem Society's 19th Annual Show. Earl Warren Showgrounds, Santa Barbara, Calif. Demonstrations. Dealer space filled.

APRIL 22-24, "201 Flowers" sponsored by

the Riverside Community Flower Show Association, Ben H. Lewis Hall, Raincross Square, 3443 Orange St., Riverside, Calif. Garden tours and workshops. Adults, \$1.50; children free with adult.

APRIL 23 & 24, Silvery Colorado River Rock Club's Tenth Annual River Gemboree, Junior High School, Hancock Rd., Holiday Shores, Bullhead City, Arizona. Exhibits, field trips, demonstrators. Parking and admission free.

APRIL 23 & 24, 10th Annual Kern County Heritage Days Celebration sponsored by Heritage Days Committee, Bakersfield, Calif. Old-time observance at Kern County Museum Pioneer Village. Free admission, parade, exhibits, entertainment.

APRIL 23 & 24, 12th Annual "Gold Dust Days" show, sponsored by the Amador County Gem & Mineral Society, Amador Co. Fairgrounds, Plymouth, Calif. Dealers, displays, field trips, camping spaces.

APRIL 23 & 24, South Bay Lapidary and Mineral Society's 28th annual show, Torrance Recreational Center, 3341 Torrance, Torrance, Calif. Free admission and parking.

APRIL 30-MAY 1, Norwalk Rockhounds 13th Annual Gem Show, Masonic Lodge, 12345 E. Rosecrans Ave., Norwalk, Calif. Admission free. Prizes.

APRIL 30 - MAY 1, Tourmaline Gem & Mineral Society's 28th free annual show. Helix High School, 7332 University Ave., La Mesa, Calif. No dealers.

MAY 7 & 8, 19th Annual Gem and Mineral Show sponsored by the Kern County Gem and Mineral Society, Kern County Fairgrounds, Ming and So. "P" St. Free admission, ample parking, dealers of all kinds.

MAY 14 & 15, Mission Peak Gem and Mineral Society's 11th Annual Show, Irvington High School, Blacow Rd. at Grimmer Blvd., Fremont, Calif. Special exhibits, demonstrations, dealers.

MAY 21 & 22, Sacramento Diggers Mineral Society's "77 Gemstone Festival." Florin Center Mall, Florin Road and Stockton Blvd., Sacramento, Calif. Dealers.

MAY 21 & 22, Yucaipa Valley Gem & Mineral 12th Annual Show, "77 Lucky Gems." Yucaipa Valley Community Center, First Street and Avenue B, Yucaipa, Calif. Free admission and parking.

MAY 21 & 22, Glendale Lapidary and Gem Society's 30th Annual May Festival of Gems, Glendale Civic Auditorium, 1401 N. Verdugo Rd., Glendale, Calif. Admission 50 cents.

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